See Pages 70 and 71.

CITY OF LEICESTER
EDUCATION COMMITTEE

ANNUAL REPORT

OF THE

SCHOOL MEDICAL OFFICER

E. K. MACDONALD, O.B.E., M.D., D.P.H.

FOR THE YEAR ENDING
31ST DECEMBER, 1945.

H. S. MAGNAY, M.A.,
Director of Education.

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CITY OF LEICESTER EDUCATION COMMITTEE.
1944-45.

MEMBERS OF THE COUNCIL

*Ald. Richard Hallam, j.p., *Chairman.*

*Mr. C. R. Keene, j.p., *Vice-Chairman.* (*Resigned* 23.4.45)

*The Lord Mayor (Mr. J. Minto, j. p.)
Mr. David Bentley, j.p.
Mr. P. A. Bentley
Mr. C. P. Blackburn
Mr. S. Brown
*Mr. J. Cave
*Ald. Dr. Astley V. Clarke, m.d., d.l., j.p. (*Deceased*)
Mr. S. Cooper
*Miss E. C. Fortey, b.sc., j.p.
Miss E. R. Frisby, m.b.e., j.p.
*Miss M. Goodwin, m.b.e., j.p.
*Ald. E. Grimsley, j.p.
Mr. C. H. Harris
Mr. C. B. S. Morley, c.b.e., t.d. (*Appointed May,* 1945)
Mr. P. Russell (*Resigned* 13.10.45)
Mr. W. H. Smith, j.p.
Mrs. E. Swainston
Ald. S. Taylor, j.p.
Mr. A. N. Vesty
*Ald. Mrs. I. Warner, m.b.e., j.p. (*Resigned Sept.,* 1945)
*Mr. F. T. Watson, j.p.

NOT MEMBERS OF THE COUNCIL

The Very Rev. Father W. Ardagh, o.p., s.t.l., d.d.
Mr. F. L. Attenborough, m.a.
Mr. W E. Boulter
Miss C. B. Ellis, m.a.
Rev. Canon R. L. Leatherdale
Mr. W. F. Maw (*Resigned* 25.6.45)
*Mr. W. Oram
Rev. W. Thompson
Mr. E. Tyler

*MEMBERS OF THE MEDICAL SERVICE COMMITTEE

Chairman: Miss E. C. Fortey, b.sc., j.p.

Vice-Chairman: Ald. Richard Hallam, j.p.

Co-opted Member: Dr. E. W. Holyoak, m.b., m.r.c.s., l.r.c.p.

CITY OF LEICESTER

Area of City (in acres) since Extension, 1935	16,979
Population (estimated, 1944)	257,450
Number of Schools (Elementary)	75
Number of Departments	118
Average Attendance	27,212
Average Number on School Registers	31,591
Number of Schools (Secondary)	10
Number on School Registers	5,019

CONTENTS

SCHOOL MEDICAL SERVICE STAFF.

School Medical Officer (and Medical Officer of Health).

E. K. MACDONALD, O.B.E., M.D., B.S., D.P.H.

Senior Medical Officer.

A. C. TURNER, D.S.O., M.D., B.S., D.P.H.

Senior Assistant School Medical Officer (and Assistant Medical Officer of Health).

K. MCALPINE, M.B., CH.B.

Assistant School Medical Officers (and Assistant Medical Officers of Health).

GLADYS RANDALL, M.B., B.S., D.P.H.

MARGARET D. HIRD, M.B., CH.B., D.P.H. (*On Military Service*)

ANNYS M. CUSACK, M.B., B.S., D.P.H. (*On Military Service*)

Assistant Medical Officers of Health (and Assistant School Medical Officers).

JANET M. DONE, M.B., B.S., D.P.H.

PAULINE K. HEARTH, M.B., B.CH., B.A.O., D.P.H.

MOLLY B. WILSON, M.B., CH.B., D.P.H.

I. DUB, M.D. (*Temporary*)

Ophthalmic Surgeons.

C. C. H. BINNS, M.A., M.B., B.CH.

A. L. MCCURRY, M.D., D.O.M.S. (*Returned from Military Service*, 1.1.46)

DOROTHY K. SOUPER, M.A., M.B., CH.B., D.O.M.S. (*Resigned* 31.12.45)

Orthopædic Surgeon.

L. MORRIS, M.D., F.R.C.S.

Aural Surgeon.

J. H. O'DONNELL, M.B., CH.B., F.R.C.S., D.L.O.

Physician in Charge of Rheumatism Clinic.

J. V. C. BRAITHWAITE, M.D., F.R.C.P.

Anæthetists.

E. L. LILLEY, M.B., B.S., F.R.C.S.

JEAN S. B. MCNEIL, M.B., CH.B., D.A.

Physicians in Charge of Clinics for Skin Diseases and Minor Ailments and/or Scabies.

H. N. C. ATKINSON, M.R.C.S., L.R.C.P.

K. C. BUCK, M.D., B.S., M.R.C.S., L.R.C.P. (*Till* 17.12.45)

ERNA W. KORN, M.D. (*Resigned* 31.12.45)

L. A. LAVENTHALL, M.R.C.S., L.R.C.P.

Senior Dental Surgeon.

F. G. HARVEY, B.D.S. (*Till* 9.9.45)

A. J. SUTHERLAND, L.D.S. (*Since* 9.9.45)

Dental Surgeons.

N. HOWSON, L.D.S.

G. ALLEN, M.R.C.S., L.R.C.P., L.D.S.

J. W. WILLIAMS, L.D.S. (*On Military Service*)

F. G. SUTCLIFFE, L.D.S. (*On Military Service*)

Speech Therapists.

MISS M. K. ALLEN (Senior). (*On leave of absence since* 24.9.45)

MISS R. E. PERKINS.

MISS R. N. LANE. (*Temporary since* 1.9.45)

Orthoptist.

MISS K. M. BASTOW.

Organisers of Physical Training.

MR. F. W. BRIGGS.

MISS JEAN BENNETT.

Superintendent School Nurse.

Miss L. G. Ball.

Resident Staff.

Miss E. Baker, *Sister in Charge.* (*Till* 17.9.45)

Mrs. G. Searson, *Nurse.* (*Temporary, till* 29.9.45)

Orthopædic Nurse.

Miss A. Ahern.

School Nurses.

Mrs. M. Burden.
Miss J. G. Carter. (*Seconded to Ministry of Labour*)
Mrs. H. Clarke.
Mrs. I. M. Clay. (*Temporary, since* 5.11.45)
Miss M. A. Foden.
Mrs. N. M. Glen. (*Temporary*)
Mrs. A. M. Gray. (*Temporary*)
Mrs. E. Greedy. (*Temporary, since* 12.3.45)
Miss M. Grocock.
Miss M. A. R. Hathaway. (*Resigned* 17.12.45)
Miss A. J. Hawgood. (*Seconded from London County Council until* 13.7.45)
Miss M. Hiscott. (*Temporary, till* 28.2.45)
Mrs. A. Hyett. (*Temporary, Sister in Charge of Operative Clinic*) (*Since* 12.11.45)
Miss E. J. Hunt.
Miss P. M. Jinks. (*On Military Service*)
Miss H. Martin.
Miss M. McCrae. (*On Military Service*)
Mrs. C. M. Olds. (*Temporary*)
Miss P. Pidcock.
Miss A. Price.
Miss D. G. Robinson. (*On Military Service*)
Mrs. B. Shelton. (*Temporary, from* 19.3.45 *till* 23.8.45)
Mrs. M. Silverwood. (*Temporary*)
Mrs. E. M. Tilley. (*Temporary*)
Mrs. E. K. V. Thynne.
Mrs. D. M. Tucker. (*Temporary*)

Clerical and Clinic Staff.

Chief Clerk.

Mr. W. E. Goodwin.

Technical Clerk.

Miss M. K. Wallbank.

Staff Clerks.

Mr. C. H. Dean. (*On Military Service*)
Miss M. Banks.
Miss P. Cooper.
Miss B. Cramp.
Miss T. Evans. (*On Military Service*)
Miss S. M. Garratt.
Miss B. E. Healey. (*Since* 1.3.45)
Mrs. J. Lawson. (*Till* 13.10.45)
Mrs. P. M. Ousey.
Miss B. Pegg. (*Since* 29.10.45)
Miss M. J. Riddington. (*Till* 17.2.45)
Mrs. A. G. Riley.
Miss G. Squires. (*Since* 23.5.45)

Medical Officers' Clerks.

Miss A. S. Astill.
Miss E. I. Clay.
Miss E. G. Girling.
Miss B. M. Hutchings.
Miss F. W. Perkins.

Dental Attendants.

Miss B. Allibone.
Miss F. A. Otter. (*Till* 31.5.45)
Miss D. Richardson.
Miss E. C. Willson.
Miss D. Wright.

Clinic Officers.

Mr. F. Timson.
Mr. H. C. S. Payne. (*On Military Service*)

Clinic Attendant.

Mr. H. J. Donne.

Caretakers.

Mr. G. P. Hurst. (*Resigned* 29.12.45)
Mr. L. Chaplin. (*Since* 29.12.45)
Mr. H. J. Twigger.

Bath Attendants.

Mrs. I. Borghgraef. (*Till* 30.6.45)
Mrs. O. Burgess.
Miss B. J. Goodey.
Mrs. R. Hitchen. (*From* 2.7.45 *till* 3.11.45)
Mrs. L. M. Hunt. (*From* 5.11.45 *till* 17.12.45)
Mrs. E. Lester. (*Till* 20.10.45)

CITY OF LEICESTER EDUCATION COMMITTEE.

REPORT of the School Medical Officer

FOR THE YEAR ENDED DECEMBER 31st, 1945.

To the Chairman and Members of the Education Committee.

Mr. Chairman, Ladies and Gentlemen,

I have the honour to present, for your consideration, my Report on the work of the School Medical Service of the City of Leicester during the year 1945.

The factors necessitating the presentation in abbreviated form of these reports continue to operate, but all new departures and important alterations are described in full.

The new Education Act came into force on April 1st, but, in accordance with the wishes of the Ministry of Education, the old classification of schools has been adhered to throughout the Report. It would have been difficult to present the statistics strictly in accordance with the status of the schools both before and after April 1st.

It is with great regret that I have to record the absence from duty during the last weeks of the year, through ill-health, of Dr. Turner, the Senior Medical Officer. His absence has made an already difficult staffing position many times more difficult.

Practically the last of the Evacuees in the City returned to their homes in July. Very few now remain in Leicester.

An outbreak of Epidemic Jaundice at the Wyvern Avenue School during the first half of the year is worthy of special mention. Full details of the outbreak will be found in Dr. Turner's very interesting and instructive article on page 38.

I wish to draw special attention to the re-opening of the Poor Boys' and Girls' Summer Camp and of the Education Committee's Autumn Camp at Mablethorpe, made possible by the cessation of hostilities. The much-needed change of air brought to a number of children an incalculable amount of health-giving enjoyment. It was a great pleasure to hear from the children, on their return, their delighted accounts of the joys of the Mablethorpe Camp. It is hoped to send an even larger number there next year. Details are given on page 27.

The Health Exhibition held at the Municipal Offices, Charles Street, and at the Museum, in March, has, it is hoped, given the parents a good idea of the services available for the children and encouraged them to make the best use of the facilities offered. Particulars will be found on page 37.

Dr. Turner's Review of the School Medical Service in Leicester from its early beginnings gives a very able and painstaking survey of the growth and expansion to its present dimensions. See page 51.

The resignation of Mr. F. G. Harvey from the appointment of Senior Dental Officer, which be has held for the last fifteen years, is reported on page 8. I would like to associate myself with the tribute paid to his work by his successor on page 21.

The King's College of Household and Domestic Science have, since their evacuation to Leicester, made several important investigations of school meals. On this occasion the iron content of the meals has been chosen as their subject. These investigations are most helpful in the preparation of suitable menus to ensure the adequate intake of important food factors. Details of their iron investigation are on page 40.

As on previous occasions, I would desire here to express my keen appreciation of the most valuable work carried out by Dr. Turner and the Staff of the School Medical Service, and also my most sincere thanks to the teachers of both Elementary and Secondary Schools for all the assistance they have so readily given in the work of medical and dental inspection.

To you, Sir, and to your Committee, to the Chairman of the Medical Services Sub-Committee, and to the Director of Education and his Staff I would wish to express my gratitude for the sustained encouragement and unvarying consideration that have been accorded to the School Medical Service during the year.

I am, Ladies and Gentlemen,
Your obedient Servant,

E. K. MACDONALD,
Medical Officer of Health and School Medical Officer.

1.—STAFF.

The year 1945 has been an extremely difficult one as regards staff. The shortage has affected doctors, dentists and nurses alike and it has been with the utmost difficulty that clinics have been kept going. It was necessary to close the Ultra-violet Light Clinic from October 31st till December 10th. It was, at one time, feared that the Operative Clinic might have to close down owing to lack of nurses as no resident staff existed after September. Fortunately it was found possible to keep it open with a non-resident staff, the remaining school nurses agreeing to take it in turn to do evening and night duty. My most sincere thanks are due to the nurses who volunteered for this work at considerable sacrifice of their off-duty time.

With the progress of demobilisation the staff situation now appears to be somewhat easier and it is hoped that, before long, there may once more be an adequate staff available.

(a) Medical Staff.

Dr. Turner, The Senior Medical Officer, became ill on November 21st and, most unfortunately, was still unfit to return to duty at the end of the year. A redistribution of the work, affecting Dr.

McAlpine and Dr. Randall, was thus rendered necessary. The duties for which Dr. Turner is normally responsible were assumed by Dr. McAlpine, whose work, in turn, was transferred to Dr. Randall during the period in question.

Throughout the year Dr. Cusack, Dr. Hird and Mr. McCurry have been absent on military service. Mr. McCurry returned to his civil practice on January 1st, 1946, Mrs. Souper leaving on the same day.

Dr. E. W. Korn resigned from her part-time work at the Chester Street Minor Ailments Clinic on December 31st. Dr. H. N. C. Atkinson has expressed his willingness to undertake this work at Chester Street in addition to the sessions which he already gives at the Northfield Lodge Clinic.

With the closure of Wellinger Way Scabies Clinic on December 17th, the appointment of Dr. Buck terminated. I would wish to tender to him my most sincere thanks for the help he gave at a time when shortage of medical officers threatened to make it impossible to keep the various clinics open.

(*b*) *Dental Staff.*

Mr. F. G. Harvey, the Senior Dental Officer, resigned his position on September 9th as he had been appointed to a similar post in the Isle of Wight.

Mr. A. J. Sutherland was appointed to succeed him as Senior Dental Officer.

Throughout the year Mr. J. W. Williams and Mr. F. G. Sutcliffe have been absent on military service.

(*c*) *Nursing Staff.*

Throughout the year Nurses P. M. Jinks, M. McCrae and D. G. Robinson have been absent on military service.

Miss E. Baker, Resident Sister-in-Charge of the Operative Clinic, resigned on September 17th and Mrs. G. Searson, Temporary Resident Nurse, resigned on September 29th. It proved quite impossible to replace them, repeated advertisements producing not a single application. On November 12th Mrs. A. Hyett was appointed Temporary Non-resident Sister-in-Charge of the Operative Clinic.

Other appointments and resignations during the year are given below:—

Appointments.

Mrs. E. Greedy (Temporary, March 12th).
Mrs. B. Shelton (Temporary, March 19th).
Mrs. I. M. Clay (Temporary, November 5th).

Resignations.

Miss M. Hiscott (Temporary, February 28th).
Mrs. B. Shelton (Temporary, August 23rd).
Miss M. A. R. Hathaway (Permanent, December 17th).

Nurse Hawgood, who had been seconded to the Leicester School Medical Service from the London County Council returned to London on July 13th.

Throughout the year Nurse Carter has remained seconded to the Ministry of Labour.

(d) Speech Therapists.

Miss M. K. Allen, the Senior Speech Therapist, left on September 24th to proceed on a year's study leave. Since that date Miss R. E. Perkins has been in charge with the help of Miss R. N. Lane appointed as temporary assistant on September 1st.

(e) Clerical and Clinic Staff.

Throughout the year Mr. C. H. Dean, Miss T. Evans and Mr. H. C. S. Payne have been absent on military service.

New appointments during the year were:—

Miss B. E. Healey, March 1st.
Miss G. Squires, May 23rd.
Miss B. Pegg, October 29th.

Resignations during the year were:—

Miss M. J. Riddington, February 17th.
Miss F. A. Otter, May 31st.
Mrs. J. Lawson, October 13th.

(f) Bath Attendants.

Mrs. I. Borghgraef, Bath Attendant at Wellinger Way Clinic, resigned her post on June 30th. She was succeeded by Mrs. R. Hitchen who commenced duty on July 2nd and who, in turn, resigned on November 3rd. Mrs. L. M. Hunt was appointed to fill the vacancy and commenced duty on November 5th. She was temporarily transferred to the service of the Public Health Authority on December 17th, when Wellinger Way Clinic closed.

With the closure of Marriott Road Scabies Clinic on October 20th Mrs. E. Lester's appointment as Bath Attendant was terminated.

(g) Caretakers.

Mr. G. P. Hurst resigned from his position as caretaker of the Richmond House Clinic on December 29th, after over 20 years of service there, and Mr. L. Chaplin, appointed as his successor, assumed duty on the same date.

II.—CO-ORDINATION.

The co-ordination between the work of the School Medical Service and that of the Public Health Department remains as described in previous reports, with the exception of one important change which occurred during 1945. This was the inception of mass radiography (miniature X-ray examination of the chest) which was offered to all boys and girls leaving school. Particulars will be found on page 15 of this Report.

III.—THE SCHOOL MEDICAL SERVICE IN RELATION TO PUBLIC ELEMENTARY SCHOOLS.

The following report on new premises and improvements during the year has been received from Mr. J. O. Thompson, Surveyor to the Education Committee:—

The A.R.P. shoring and blast walls have been removed from a number of rooms including the rooms at Elbow Lane Clinic.

Facilities for school feeding have been extended at a number of schools and the new Central Kitchen has been opened at Goldhill Park Estate.

The Cort Crescent Clinic has been relinquished by the Civil Defence Committee and is now being used again as a School Clinic.

The Girls Remand Home has been transferred from Batten Street to temporary premises at No. 3 Mill Hill Lane.

Consequent upon the vacation by the Civil Defence Committee of the Civil Defence Depots at Humberstone Drive, Wigston Lane and Western Park these premises have been taken over by the Education Committee. The premises at Humberstone Drive have been adapted for use as a Training College for Teachers and at Wigston Lane for use as a Junior Art School.

A new combined domestic science room has been erected at the Collegiate Girls' School.

A new combined domestic science and upholstery room has been erected at the Domestic Science College, Knighton Fields.

Extensions are in progress at the Gateway Boys' School to provide additional accommodation.

IV.—MEDICAL INSPECTION.

(a) The arrangements made for routine medical inspection were fully described in my Annual Report last year and no change has taken place during the year under review.

The total number of children examined at routine inspections during 1945 was:—

Elementary Schools: 8558 as compared with 9859 in 1944.
Secondary Schools: 1566 as compared with 1563 in 1944.

A considerable number of schools have changed their status from elementary to secondary during the year but the figures throughout this Report relate to the schools according to their status prior to 1st April, 1945.

Statistical particulars will be found in Table I at the end of this Report.

(b) Arrangements and methods adopted for Medical Inspection.

These have been fully described in previous reports. No change has occurred in the year under review.

A number of height and weight records has again been forwarded to the Ministry of Health at the request of the Ministry of Education. These are to serve as a control in an investigation which is taking place as to the growth of children in School Camps.

V.—THE FINDINGS OF MEDICAL INSPECTION.

(*a*) *Heights and Weights.*

In the course of routine medical inspection, the height and weight of every child examined are recorded. It is necessary, however, to have the measurements of a very large number of children to obtain reliable figures with regard to the average height and weight for each age. The three ages at which the largest number of children are examined each year are five, eight and twelve years.

The following table shows the average heights and weights (in inches and pounds respectively) of boys and girls for these three ages, compared with those found five years ago in 1940:—

			1940	1945	Difference
CHILDREN AGED 5 TO 6 YEARS.					
Boys	...	Height	43.0	42.8	−0.2
		Weight	41.5	41.9	+0.4
Girls	...	Height	42.5	42.7	+0.2
		Weight	39.7	40.7	+1.0
CHILDREN AGED 8 TO 9 YEARS.					
Boys	...	Height	49.5	49.6	+0.1
		Weight	55.5	56.3	+0.8
Girls	...	Height	49.7	49.2	−0.5
		Weight	54.7	54.6	−0.1
CHILDREN AGED 12 TO 13 YEARS.					
Boys	...	Height	56.7	56.9	+0.2
		Weight	79.0	79.6	+0.6
Girls	...	Height	58.2	57.7	−0.5
		Weight	84.2	82.9	−1.3

There is not a great deal of difference between the two sets of figures except in the case of the older girls who show a slight falling off at the age of eight and a considerable one at the age of twelve. Boys of all ages have been practically unaffected by the war years.

It is curious that there should be this difference between the sexes. A possible explanation is that with the extensive employment of mothers in industry the older girls have had to shoulder more than their fair share of household duties and responsibilities.

(*b*) *Malnutrition.*

The classification of the nutrition of children examined at the routine medical inspections during 1945 was as is shown below:—

Elementary Schools.

Total No. Examined.	Excellent.	Normal.	Slightly Sub-normal.	Bad.	Obese.
8,558	1,868 =21.8%	5,265 =61.5%	1,290 =15.1%	42 =0.5%	93 =1.1%

Secondary Schools.

Total No. Examined.	Excellent.	Normal.	Slightly Sub-normal.	Bad.	Obese.
1,566	492 =31.4%	847 =54.1%	190 =12.1%	— —	37 =2.4%

The figures for the past six years have been:—

Year.	Total Examined.	Excellent.	Normal.	Slightly Sub-normal.	Bad.	Obese.
1945	8,558	21.8%	61.5%	15.1%	0.5%	1.1%
1944	9,576	22.6%	60.5%	15.9%	0.2%	0.8%
1943	10,649	19.2%	62.4%	17.3%	0.2%	0.9%
1942	13,001	15.3%	63.4%	20.5%	0.1%	0.7%
1941	12,363	16.6%	64.0%	18.8%	0.2%	0.4%
1940	9,429	14.3%	66.6%	18.4%	0.2%	0.5%

It will be seen that up to the year 1944 there was a slow but fairly steady improvement in the standard of nutrition. That improvement has now received a slight check. In 1945 there was a slight reduction in the numbers showing excellent nutrition and a small increase in those showing bad nutrition. It would appear that the effects of austerity are at last beginning to manifest themselves.

A noticeable point is the steady rise, year by year, in the numbers of children recorded as obese. Presumably this is due to an excessive proportion of carbohydrate in the diet of the war years.

(*c*) *Cleanliness.*

Particulars of the amount of infestation by vermin found by the School Nurses at the routine Cleanliness Inspections are given on page 16 of this Report.

The number of children found to have body lice remains very small. Fortunately these pests have not been spread by war conditions to the extent that might have been expected; fifty-two children were found to suffer from these vermin.

The number of children found to have unclean heads was 2,775; of these, 629 were lousy, whilst 2,146 had one or more nits in their hair.

These figures show some increase on those of 1944 when 2,661 were found to be unclean.

This is unsatisfactory and it is hoped that with the return of our Nurses from military service the inspection of schools will bring about an improvement.

Unfortunately this state of affairs has been favoured by war conditions with their inevitable accompaniments of overcrowding, extensive movements of population, and, above all, the employment of mothers in industry.

Since the cessation of hostilities some of these factors are being eliminated.

(*d*) *Minor Ailments and Diseases of the Skin.*

There were 42 cases of skin disease discovered at the routine medical inspections; of these 37 were referred for treatment. In addition, 11,709 cases discovered at special inspections were referred for treatment as compared with 11,829 which was the corresponding number in 1944.

There has been a considerable decrease in the number of cases of scabies; 1,515 cases of this disease were reported among school children as compared with 2,020 in 1944, 2,349 in 1943, and 2,973,

the peak figure, in 1942. This most troublesome epidemic appears now to be abating.

There is also a progressive reduction in the number of cases of impetigo, 1,208 cases were recorded in 1945 as against 1,464 in 1944 and 1,624 in 1943.

Ringworm likewise shows a decrease on the figure of 439 for 1944, the number of cases being 306 in 1945.

(e) *Visual Defects and External Eye Diseases.*

There were 1,124 cases of visual defect found at the routine medical inspections. Of these 657 were referred for treatment and 467 kept under observation. In addition 2,520 special cases were referred for treatment and 639 kept under observation. The number of children found at the routine medical inspections to be suffering from external eye disease was 32.

Defective Colour Vision.

As in previous years an examination with the Ishihara Test has been incorporated with the routine medical inspection of the leavers.

Elementary Schools,

	Boys	Girls
Tested	1,320	1,197
Found Defective	86	5
Percentage found Defective ...	6.5	0.4

Secondary Schools,

	Boys	Girls
Tested	292	293
Found Defective	17	—
Percentage found Defective ...	5.8	—

Nothing whatever can be done to remedy a defect in colour vision but it is of considerable importance that its presence should be known as it is likely to prove a handicap in certain types of employment. The parents or guardians have accordingly been notified in every case where such a defect was found.

(f) *Nose and Throat Defects.*

On routine medical inspection 727 children were found to have some defect of nose or throat; of these, 437 were referred for treatment. There were also 1,362 children referred for treatment for such defects which were discovered when they were examined as special cases.

(g) *Ear Disease and Defective Hearing.*

An examination of the ears with an electric otoscope now forms part of the routine medical inspection of each child.

Arising out of the routine medical inspections there were 156 cases of ear disease or of defective hearing referred for treatment, whilst 52 were kept under observation. There were also 936 special cases referred for treatment on account of these defects whilst 120 were kept under observation.

Audiometer Tests.

As in previous years children have had their hearing tested by the gramophone audiometer as a routine measure, as soon as practicable after they had attained the age of eight years.

The numbers tested, re-tested and found deaf were:—

Elementary Schools,

	Tested.	Re-tested.	Found Deaf.	Percentage found Deaf.
Boys	410	71	37	9.02
Girls	393	127	41	10.43
Total ...	803	198	78	9.71

Secondary Schools,

	Tested.	Re-tested.	Found Deaf.	Percentage found Deaf.
Boys	198	16	7	3.53
Girls	420	53	10	2.38
Total ...	618	69	17	2.75

(h) Dental Defects.

Particulars of dental inspection and treatment are given in the report of the Senior Dental Surgeon on page 21 of this Report.

(i) Orthopædic and Postural Defects.

In the course of routine medical inspection 321 cases of spinal curvature, flat foot and other orthopædic defects were found during the year. Of these, 175 were referred for treatment and 146 kept under observation.

In addition, 1,212 such defects were found during special examinations. Of these, 886 were referred for treatment and 326 kept under observation.

(j) Heart Disease and Rheumatism.

The numbers of children found to be suffering from these conditions were:—

At Routine Medical Inspections.

	Referred for Treatment.	Kept under Observation.
Heart Disease:—		
Organic	3	33
Functional	—	66
Rheumatism	95	17
Chorea	1	1

At Special Medical Inspections.

	Referred for Treatment.	Kept under Observation.
Heart Disease:—		
Organic	3	79
Functional	—	122
Rheumatism	317	38
Chorea	20	9

The report of the Physician in Charge of the Rheumatism Clinic will be found on page 25 of this Report.

(*k*) *Tuberculosis.*

At the routine medical inspections were discovered 4 cases of definite phthisis, 48 cases of suspected phthisis and 16 cases of non-pulmonary tuberculosis.

Among the children examined as special cases were found 6 cases of definite phthisis, 120 cases of suspected phthisis and 49 cases of non-pulmonary tuberculosis.

Details of the co-operation between the School Medical Service and the Tuberculosis Dispensary were given in my Annual Report for 1938.

In the midsummer term, miniature mass radiography (small scale X-ray examination of the chest) was for the first time offered to all boys and girls leaving school. This measure was continued during the autumn term. The total number of leavers who took advantage of the offer was 847 boys and 855 girls.

The following table shows the types of abnormalities found:—

(1) Pulmonary Tuberculosis.

	Boys.	Girls.
Active primary lesions	1	1
Active post-primary lesions	—	1
Inactive primary lesions	2	2

(2) Non-Tuberculosis.

Abnormality of bony thorax	—	3
Pulmonary fibrosis	4	—
Bronchiectasis	—	2
Heart lesions	2	4
Chronic Bronchitis and emphysema ...	1	1
Various	1	—

(*l*) *Other Defects and Diseases.*

As a result of routine medical inspection 98 cases of other defects and diseases were referred for treatment whilst 113 such cases were kept under observation. There were, in addition, 245 special cases referred for treatment and 421 special cases kept under observation.

VI.—FOLLOWING-UP.

Review of the arrangements for the following-up of children suffering from physical defects, including a summary of the work undertaken by the School Nurses.

The scheme of following-up children who are found to suffer from any defect requiring treatment or observation has remained unchanged since it was described in my Annual Report for 1937.

During the year the School Nurses have, in addition to attendance at the various clinics, carried out the undermentioned work:—

(1)	Number of visits paid to Schools		1,719
(2)	Number of examinations of children		113,406
(3)	Number of individual children found unclean ...		2,827
(4)	Number of individual children sent home:—		
	(a) Verminous body.	Once	42
		Twice	9
		Thrice	1
	(b) Verminous head.	Once	587
		Twice	28
		Thrice	14
(5)	Number of visits paid to homes		1,355
(6)	Number of children found with poor boots		233
(7)	Number of children found with unsatisfactory clothing		97

VII.—ARRANGEMENTS FOR TREATMENT.

The Education Act, 1944, came into force on April 1st, 1945. On and after that date all treatment at the School Clinic has been given free of cost to the parents.

On the same date the Education Committee became responsible for the provision of treatment in hospital for children attending schools maintained by the Committee. A preliminary discussion with representatives of the Royal Infirmary took place on July 17th. Shortly afterwards the British Hospitals Association asked all its members to defer financial negotiations until a national agreement had been achieved. On the financial side therefore matters are, at present, in abeyance.

There has been during the year, no new development as regards medical treatment. The present provision is as follows:—

(a) Malnutrition.

Children suffering from malnutrition are sent to the Open-air School, provided with meals or milk at school, or, if the malnutrition is associated with such conditions as rickets or anæmia, are treated by Artificial Sunlight (Ultra-violet Light).

Clinics for this form of treatment are held twice daily at Richmond House. Dr. Randall is in charge of this clinic and she reports as follows on the work done during 1945.

Report on Artificial Sunlight Clinic, 1945.

The number of cases treated at this clinic has been fewer. Owing to shortage of staff, the department had to be closed for approximately six weeks in November and December, unfortunately at a time when the clinic is normally most busy. Attendances have been more regular than in previous years and results have been good.

The total number of children referred to the clinic was 389, consisting of 204 school children and 185 infants from the Infant Welfare Centres. The corresponding number for 1944 was 442 (227 school children and 215 infants).

Thirty-two cases were examined but not treated, artificial sunlight treatment being not necessary or inadvisable. Seven cases were examined but failed to attend for treatment. The actual number of cases treated was 350.

The number of treatments given was 5,447, and the total attendances 5,961. The number of medical examinations was 514.

Thirty-one children attended for a few treatments only and no report could be given on these cases.

The number of children discharged after one or two courses of treatment was 235; 143 school children and 92 infants.

Results were as follows:—

School Children.	Good Results.		Fair or Unchanged.		Total.
	Boys.	Girls.	Boys.	Girls.	
Debility	29	24	1	4	58
Anaemia	5	3	—	—	8
Cervical adenitis ...	6	2	—	—	8
Asthma and chest affections	17	14	1	1	33
Catarrhal affections...	12	11	—	—	23
Various	6	5	2	—	13
Total ...	75	59	4	5	143

Infants.	Good Results.		Fair or Unchanged.		Total.
	Boys.	Girls.	Boys.	Girls.	
Debility	14	18	2	—	34
Anaemia	4	5	—	—	9
Rickets	19	10	—	—	29
Bronchial catarrh ...	6	4	—	—	10
Various	4	6	—	—	10
Total ...	47	43	2	—	92

Forty-seven school children and 37 infants were still under treatment at the end of the year.

In addition, 77 children attended this department for examination with an Ultra-Violet Ray Lamp with Wood's Glass attached, for suspected ringworm of the scalp. There were 173 attendances.

GLADYS RANDALL.

(*b*) *Uncleanliness.*

Particulars of the work done by the School Nurses in connection with the Cleanliness Scheme are given on page 16 of this Report.

School Baths.

There has been no new development during the year.

(*c*) *Minor Ailments and Diseases of the Skin.*

Clinics for the treatment of these conditions are held each morning at Richmond House, Chester Street, Cort Crescent, Marriott Road and Northfield Lodge.

The number of cases of skin disease referred for treatment during the year was 11,746 as compared with 11,900 during 1944. Of these cases, 11,005 were treated at the School Clinics whilst 657 received

treatment elsewhere. The corresponding figures for 1944 were 10,984 and 818 respectively.

The number of attendances made at the Skin and Minor Ailments Clinics during the year was 54,319, as compared with 52,649 during 1944.

Ringworm.

As is mentioned on page 13 of this Report there has been a marked reduction in the number of cases of ringworm. Seven cases of ringworm of the scalp were treated by X-rays at the City General Hospital with excellent results in each case. The corresponding number for 1944 was 16.

Scabies.

The arrangements made for the treatment of scabies were described in my Annual Report for 1942. As is mentioned on page 12 of this Report there has been, during the year, a considerable reduction in the numbers of cases of scabies. The Scabies Clinic at Marriott Road was closed on October 20th, the few remaining patients being transferred to Granby Halls. The Scabies Clinic at Wellinger Way was closed on December 17th, the remaining patients being likewise transferred to Granby Halls.

The numbers treated at the various clinics during 1945 were as follows:—

School Children.	No. of Patients.	No. of Attendances.
Granby Halls	720	3,903
Marriott Road	111	1,567
Northfield Lodge	367	3,542
Slater Street	240	4,319
Wellinger Way	321	4,774

Patients above or below School Age.	No. of Patients.	No. of Attendances.
Granby Halls	1,170	5,245
Marriott Road	55	567
Northfield Lodge	228	2,042
Slater Street	220	2,593
Wellinger Way	148	1,943

The total number of patients treated was:—

School Age: 1,759 as compared with 2,333 in 1944.
Other Ages: 1,821 as compared with 2,280 in 1944.

The total number of attendances made at the Scabies Clinics was:—

School Age: 18,105 as compared with 22,379 in 1944.
Other Ages: 12,390 as compared with 14,376 in 1944.

In addition, 293 children of school age and 663 persons above and below School Age attended at Granby Halls for examination and were found not to be suffering from scabies.

(d) Visual Defects and External Eye Diseases.

Clinics for the treatment of these defects are held at Richmond House, on Tuesday and Friday afternoons, and at the Public Medical Service Building in Bond Street on Monday and Friday mornings.

The number of children referred for refraction was 3,177. Of these, 2,129 were refracted at the School Clinics (1,478 at Bond Street and 651 at Richmond House) and 180 elsewhere. There were 164 children refracted who were found not to require glasses.

There were 506 cases of external eye disease referred for treatment during the year. Of these, 462 received treatment at the School Clinics and 13 were treated elsewhere.

The number of children who received orthoptic (squint training) treatment was 120 as compared with 72 in 1944.

(e) Ear, Nose and Throat Defects and Defective Hearing.

Clinics are held daily at Richmond House for the diagnosis and treatment of ear, nose and throat defects. Operative treatment is carried out on five mornings a week at Elbow Lane Clinic.

The number of children referred for treatment during the year for defects of nose and throat was 1,799; of these, 1,511 were treated at the Clinic the number receiving operative treatment being 1,017 (including 95 children of pre-school age and 261 cases from the County area).

In addition, 1,092 children suffering from ear defects, including defective hearing, were referred for treatment. Of these, 930 attended the Clinic and 52 received treatment elsewhere. Of these children 12 received operative treatment at the Clinic.

Mr. O'Donnell, the Ear, Nose and Throat Surgeon, reports as follows:—

Report on Operative Clinic.

The following is a report of the operative work of the Ear, Nose and Throat Clinic. The accompanying table shows the numbers and types of operation performed during 1945.

	Leicester City School Age.	Leicester County School Age.	Pre-School Age.
Removal of adenoids and tonsils	612	88	258
Removal of tonsils ...	1	—	—
Removal of adenoids ...	23	6	3
Radical mastoid operation with skin graft ...	1	—	—
Removal of aural polypus	2	—	—
Incision of meatal boil	1	—	—
Removal of nasal polypi	3	—	—
Removal of foreign body from nose	—	1	—
Antral lavage	8	—	—
Myringotomy for acute otitis media	6	—	—
Removal of impacted cerumen	2	—	—
Turbinectomy	1	—	—
Cauterization for epistaxis	1	—	—
Totals ...	661	95	261

Total operations ... 1,017

Age and Sex incidence of Tonsil and Adenoid operations.

Age	Boys	Girls
3 years	4	4
4 ,, ...	33	27
5 ,, ...	73	56
6 ,, ...	99	94
7 ,, ...	94	86
8 ,, ...	41	45
9 ,, ...	36	50
10 ,, ...	32	38
11 ,, ...	16	24
12 ,, ...	14	23
13 ,, ...	20	21
14 ,, ...	10	14
15 ,, ...	4	0
Totals ...	476	482

Complications following Tonsillectomy.

1. Primary, or Reactionary Hæmorrhage.

One case occurred from the tonsil fossa. The bleeding vessel was ligatured, and recovery was uneventful. Three cases of naso-pharyngeal bleeding occurred. These required post-nasal tamponage, and a blood transfusion was given in two cases. They were detained for four days, and made uneventful recoveries.

2. Secondary Hæmorrhage.

Five cases of this type occurred. All were slight, and required no active treatment.

3. Ear Infection.

One case of acute otitis media was observed. The discharge ceased in a short time on dry treatment.

Complication following antral lavage.

Boy, aged 7. Six days after lavage of the left antrum for chronic purulent infection, a cavernous sinus thrombosis developed. Intensive treatment with penicillin and sulphathiazole was unavailing, and death occurred in forty-eight hours.

J. H. O'Donnell, F.R.C.S.

(f) Orthopædic and Postural Defects.

Clinics are held twice daily at Richmond House for the treatment of these defects. It has not yet proved possible to replace the Junior Orthopædic Nurse who left in September, 1943; since that date it has been feasible to treat only a very small number of those children requiring remedial exercises. Operative treatment is given at Elbow Lane Clinic in cases where the subsequent in-patient treatment is not likely to be prolonged. Children who require a lengthy stay in hospital are treated in the orthopædic wards at the City General Hospital.

During the year 481 new cases and 890 old cases received treatment. Of these, 153 received operative treatment at Elbow Lane Clinic (this figure includes 100 operations for the removal of plantar warts).

(*g*) *Dental Defects.*

Clinics for the treatment of dental defects are held at Richmond House, Caldecote Road School, Catherine Street School, London Road, Mundella School and Sir Jonathan North School.

The three dentists divide their time as equally as possible between these six clinics.

At the London Road Clinic two sessions weekly are devoted to the treatment of expectant mothers. One of the School Dentists pays periodical visits to Leicester Frith Institution to give treatment to the inmates.

Statistical particulars of the dental work done during 1945 will be found on page 24 of this Report.

Mr. Sutherland, the Senior Dental Officer, reports as follows:—

Dental Report, 1945.

The resignation of Mr. Harvey has, regretfully, to be reported. For twenty years in the service of the Committee, he served for fifteen years as Senior Dental Officer. We, his colleagues over a long period, would like to pay tribute to his skill as dental surgeon, his outstanding aptitude for work among children, and his ability as dental administrator. His resignation is a great loss to the service in Leicester.

During the year, until September, four dentists had carried on as previously, and there has been no change in personnel or accommodation. After Mr. Harvey's departure, the three remaining dentists kept a part time service going in all six clinics, being responsible for two each. Two sessions per week were allotted to Maternity and Child Welfare work, and one session per week to dental work at the Frith Institution.

Clearly this arrangement could only be defended on the assumption that three more dentists could at a reasonably early date fill the vacancies. An advertisement in October was abortive, no suitable applications were received, and the arrangement was carried on until the end of the year. It is earnestly to be hoped that suitable conditions can be created to secure the early appointment of experienced dentists to carry on this worth-while social work, and, at the same time, to relieve the strain of responsibility which rests on the dental staff who have carried on under considerable difficulty.

The picture of the dental conditions in the schools is of absorbing interest. Unfortunately, the contraction of the dental staff has widened the inspection intervals, and a survey over the year can, therefore, only be sectional. Nevertheless, one cannot but reflect on the astonishing contrast between the corresponding periods after

these two great wars. In 1919, and onwards, the teeth in our schools were in an appalling condition, parental prejudice was intense, public opinion ill-informed, inspection and treatment confined to limited age groups, acceptance rate vacillated between 40% and 50%. The whole prospect from a dental point of view was depressing in the extreme. In 1945, the incidence of caries is still, unfortunately, high, but its degree is immeasurably different, and the attendant circumstances of quite a different complexion. Parental prejudice has given place to parental demand, and public opinion would now welcome full expansion of the service to include all types of treatment under the best modern conditions. Inspection up till 1939 was annual, treatment now includes all age groups and schools of all categories, the acceptance rate for 1944 was 71%, and the overall dental picture gives rise to much encouraging speculation.

We cannot but be impressed with the dental condition of the lower age groups. The mouths of the young people in the nursery classes are a joy to examine. The greatest possible credit should be accorded to the staffs of those classes for so skilfully and patiently inculcating the habits of oral hygiene into those youngsters, and we on the dental staff would like to pay this tribute to them. If one could foresee the unobtrusive inculcation of those principles being maintained throughout school life, then this splendid beginning would in great measure be consolidated.

It is quite true, however, that we have had a powerful, and, perhaps unexpected ally in our work. Dental decay, during wartime stringency, has not found the children's teeth the happy hunting ground which unrestricted dietary rendered the teeth of the pre-war child. Immunity from dental decay in the older age groups is patchy, and there is great need for treatment, but dental immunity in the lower age groups is an observable fact for which, whatever the reasons, we must be profoundly thankful. That here there is a prima facie case to be made out for preventive dental medicine, there can be no doubt.

The year's statistical account is to be found at the end of the Report. Naturally, owing to diminution of staff, there is a reduction all round, except in the figure under the heading "Specials." These in the main are children who attend for treatment without a previous inspection, chiefly because of pain, and the figure is in itself indicative of the reliance parents place on the continued existence of this service. There are in all 2,543 of these, a number included in the total of 16,625 examined during the year. The number found to require treatment was 8,950, 53% of the total examined. Of these, 5,876 were actually treated, giving the slightly reduced acceptance rate for 1945 of 66%. These figures cannot be regarded as other than sectional in character. In view also of the time-lag between inspection and treatment, many parents, no doubt, are compelled to have the work done privately. There has had to be, of necessity, a liberal margin of time allowed for the casual relief of pain, and this has been at the expense of routine conservative work which is the real objective of all sound dental policy. There have been 4,180 fillings inserted during the year. We have managed to keep orthodontic work going in 80 cases, and in

a few instances have introduced the new acrylic material into regulation and denture work. On the question of anæsthetics, one notes and sympathises with the increasing desire for general anæsthetics, and arrangements are made to treat all acute inflammatory conditions under nitrous oxide. I should like here to thank the anæsthetist and staff at Elbow Lane for helping out with three dental cases of some difficulty. Under happier staffing conditions, there is much to be said for the hospitalisation of difficult dental cases. Our X-ray machine continues to be of great diagnostic value.

In conclusion, since being appointed Senior Dental Officer, I should like to thank Mr. Howson and Mr. Allen and our dental attendants for their great help and co-operation.

Work for other Committees.

Dental treatment continues to be given to patients referred from the Maternity and Child Welfare Clinics; 89 sessions were held at the London Road Clinic, and the summary of this treatment will be found on page 24. As before, treatment consists mainly of extractions and the provision of dentures. One hopes that the severe curtailment of this valuable work will soon be remedied.

In addition, 41 visits to the Frith Institution were made during the year to treat the inmates who are resident there. Particulars can be found on page 24. One cannot but congratulate the Mental Deficiency Committee on the provision of such a splendid surgery for this purpose.

A. J. SUTHERLAND.

DENTAL CLINICS.

Details of Treatment, Etc.	Elementary Schools.	Secondary Schools.	Special Schools.	M. and C.W. Clinics.		Mental Deficiency Committee
				Pre-School Children	Adults	
Sessions devoted to Treatment—(Half-days)	1,475			89		41
Patients Treated	5,174	672	30	50	167	193
Attendances made by Patients	10,693	2,036	43	56	685	335
Fillings— Permanent Teeth	2,777	1,373	6	—	30	58
Temporary Teeth	54	6		—	—	—
Root Fillings	13	11	—	—	—	—
Extractions—Permanent Teeth	1,640	298	15	—	941	246
Temporary Teeth	8,569	150	17	71	—	14
Anæsthetics given—Local	6,274	368	20	40	198	135
General	93	14	1	1	18	—
Other Operations	1,231	433	17	2	305	63
Dentures	12	6	—	—	136	8
,, Repairs	—	—	—	—	7	8
Orthodontic Cases Treated involving appliances	69	11	—	—	—	—
Teeth Crowned	1	2	—	—	—	—
Scalings	235	63	—	—	22	59
Howe's Treatment	10	—	—	—	—	—
X-Ray	27	15	—	—	—	—
Obturator	—	—	—	—	—	—

(*h*) *Rheumatism.*

This clinic is held at Richmond House on Monday and Wednesday afternoons. Dr. Braithwaite, the Physician in Charge, reports as follows:—

Report on the Rheumatism Clinic, 1945.

391 children attended the Clinic this year, of whom 106 were new cases and 285 old. Last year's figures were 427, 126 and 301 respectively. 16 of the new cases were not rheumatic and were discharged.

Aetiology.

Of the 90 rheumatic cases, 36 were boys and 54 were girls. 10 came from middle class homes, and 25 from new housing estates; thus 55 came from working class districts in which the houses were from 50-100 years old. 31 came from damp and 32 from overcrowded homes. The diet was deficient in 34 cases—a considerable improvement on last year's figures, when 68 of 104 children had unsatisfactory diets. The deficiences were as follows:—

Vitamin C	5
Protein	14
Protein and Vitamin C	7
All round deficiency	8

The increased amount of oranges available has made Vitamin C deficiency much less common. (Last year 36 out of 104 had insufficient Vitamin C, and 16 had insufficient Vitamin C and Protein.)

It is remarkable that there are still children who have a severely deficient diet. Examples of these are (1) Breakfast—Tea, 11 and 3—milk at school. Dinner—Stew, apple pie, custard. Tea—Bread and jam, tea. No supper. (2) Breakfast—Cereal and milk occasionally, 11 and 3—milk at school. Dinner—Potatoes and cabbage. Tea—Bread and butter and jam, tea. No supper. (3) Breakfast—Toast and tea. No school milk. Dinner—Meat and 2 vegetables, no pudding. Tea—Bread and sugar (!), tea. No supper.

Red Hair.

2 children only had red hair, and 6 had a rufous tinge.

Prodromal Infections.

41 gave a history of prodromal infections. 29 of these had tonsillitis preceding the rheumatic complaints. 7 of these were liable to sore throats. Other infections preceding the symptoms were:—Scarlet fever 5, diphtheria, measles, appendicitis, influenza, jaundice and otitis 1 each.

Lesions.

1. *Nasopharyngeal Infection* (enlarged cervical glands): 30.

2. *Subacute Rheumatism*: This again comprises the largest group—49 children, 20 boys and 29 girls. 18 gave a rheumatic family history, 6 had systolic bruits, 1 an apical systolic bruit with a third sound, and 2 had definite diastolic mitral murmurs.

3. *Acute Rheumatism* : 32. 18 girls, 10 of whom developed carditis. 14 boys, 7 of whom developed carditis.

4. *Chorea* : 6. 3 boys and 3 girls. 2 boys but no girls had heart affections.

5. *Relapses* : Of the 391 children only 10 had relapses. 4 cases of rheumatism relapsed to rheumatism, 1 subacute rheumatism developed acute rheumatism and 5 choreas had a further attack of chorea.

6. *Disappearing Bruits* : 4 systolic apical bruits disappeared.

7. *Developing Bruits* : 7. 2 mitral diastolic, 5 systolic apical bruits.

VERNON BRAITHWAITE, M.D., F.R.C.P.

VIII.—INFECTIOUS DISEASES.

An extensive epidemic of measles occurred during March and April, all the infants' departments being affected. There was also, during the first six months of the year a very interesting minor outbreak of epidemic jaundice (infective hepatitis) at Wyvern Avenue School. This outbreak is described in detail on page 38 of this Report.

No School, department or class was closed during the year on account of infectious disease.

The incidence of diphtheria was, again, very low. The work of immunisation against diphtheria has been continued throughout the year. It is estimated that 79.9 per cent. of children of school age and 63.5 per cent. of children below school age have now been immunised against diphtheria.

There has been a very considerable decrease in the number of cases of Scabies reported.

The number of cases of infectious disease notified by the Head Masters and Head Mistresses during the year are given below. The corresponding figures for 1944 are also shown for comparison.

	1945	1944
Scarlet Fever ...	485	357
Small Pox	—	—
Chicken Pox ...	527	2,074
Diphtheria	71	84
Measles	3,660	1,232
Mumps	328	1,896
Whooping Cough ...	488	308
Ringworm	252	314
Ophthalmia	—	5
Scabies	1,206	1,592
Impetigo	558	559
Infantile Paralysis ...	2	3

Note.—These figures in certain instances are liable to correction on confirmation of the diagnosis or otherwise.

IX.—OPEN-AIR EDUCATION.

The Leicester Poor Boys and Girls Summer Camp.

The activities of this voluntary institution have been in abeyance during the war as their seaside home at Mablethorpe was requisitioned. Part of the accommodation was restored at the beginning of the summer and the first party of 44 children left for Mablethorpe on June 30th.

In all 343 children (171 boys and 172 girls) were taken to the seaside for a fortnight's stay. As in pre-war years the Education Committee arranged for two teachers to reside near the camp and to give instruction to the children for four hours daily.

These children were examined by Dr. Turner before going to Mablethorpe to ensure that they were clean and free from infectious disease.

Autumn Camp, Mablethorpe.

As in pre-war years the Education Committee had the use of the Summer Camp premises in the autumn. A party of 44 children (22 boys and 22 girls) was sent to Mablethorpe on October 20th for four weeks. On account of the difficulty of railway travel they were conveyed to and from Mablethorpe by bus.

These children were selected by the Medical Officer on the ground of debility, no charge being made to the parents.

The children were re-examined by the Medical Officer and appeared to have derived great benefit from their four weeks stay at the seaside in spite of the lateness of the season.

The average gain in weight was:—Boys 2.9 lbs.; Girls 3.0 lbs.

Open-air School, Western Park.

This is included in Section XIII of this Report, page 32.

X.—PHYSICAL TRAINING.

Report of the Organisers of Physical Training for the year ending December 31st, 1945.

Now that the war is over, it is fitting that tribute should be paid to the Heads and teachers who, in spite of the difficulties of shortage of equipment, clothing, large classes, evacuees, lack of halls, curtailed accommodation for organised games and for swimming, have done so much to maintain the physical education of the children at a good standard. The keenness, perseverance and ingenuity shown has been very noticeable, and now that the promise of relief from some of the difficulties appear, they are losing no opportunity of making up material deficiencies and promoting the physical welfare of the children. The speedy way in which the unnecessary black-out curtains were turned into shorts is only one example of this spirit.

It is pleasing also to note that there is a growing recognition of the wider aspects of physical education, which does not consist merely of a series of lessons in gymnastics, games or dancing,

essential though these be, but embraces the far wider field of nutrition, rest, hygiene and all activities conducive to a healthy way of living. Interest in these wider aspects would be considerably increased if there were any prospect of the acquisition of a school camp.

Playing Fields.

Playing field space is still restricted by anti-invasion trenches and war-time allotments, whilst transport has not been available in the pre-war degree. Nevertheless, more children are using the Committee's playing fields than last year and all children in the secondary schools, with the exception of one school, have at least one period on playing fields or public park for organised games. In addition the top classes of junior schools adjacent to playing fields have also been accommodated. A good many days are lost in the winter owing to the need for adequate washing accommodation on the playing fields. There is only one at which a shower is obtainable and one other where washing is possible. It is highly desirable that the children should be able to return home from games washed and changed.

Swimming.

During the year both Cossington Street and Spence Street baths became available. In spite of this there are still 6 secondary modern schools for which no swimming can be provided. The provision of one or more baths, particularly in the western area, is essential if these children are to be taught to swim. Moreover, the present baths accommodation is inadequate for the carrying out of any comprehensive scheme of swimming instruction, it being possible in most cases to send children for one summer only. The war-time experiment, by which children in the top classes of primary schools were sent to the baths, has shown that such children learn to swim more readily than those in secondary schools. If we are to continue sending such children and also to provide for the higher age group which will shortly be in the schools, the present bath accommodation would be wholly inadequate.

	Boys	Girls
Total No. for whom swimming instruction was provided ...	1,472	1,224
Total No. of beginners	1,317	1,165
No. of beginners who learned to swim	646	527
No. who continued during the winter	194	218

Teachers' Courses.

(1) Short course in Rhythmics and Simple Dances for teachers in Infants' Schools.

(2) Short demonstration and discussion course in Rhythmics and Simple Dances for Infants' teachers unable to take a practical part in lessons.

(3) Course in Rhythmics and Dancing for women teachers in Junior Schools.

We hope that it will soon be possible to hold teachers' classes during school hours.

Service of Youth.

Physical recreation classes have been carried out in Evening Institutes and Youth Centres as before. These classes include recreational exercises, ballroom dancing, folk dancing, indoor games, and boxing. In the summer the Committee's playing fields were used by groups from centres and institutes for various outdoor activities. The Y.O.C. Leagues for football, cricket, hockey, netball and table tennis continued to attract many entries from youth organisations. The demand for playing field accommodation by the various organisations is such that the Committee's playing fields are inadequate for their needs.

During Youth Week (April), demonstrations of the various types of physical activities in Evening Institutes, Youth Centres and Youth Organisations were given on successive evenings on the stage in the De Montfort Hall, whilst the facilities provided by the Committee for outdoor activities were also shown by means of photographs and posters. Very successful Athletic Sports and swimming meetings were arranged.

During the year the requests from Voluntary Organisations for assistance in the planning and carrying out of their physical recreation schemes and competitions have continued, and they have taken full advantage of the courses provided by the Committee for the training of leaders.

Leaders' Courses.

American Square Dancing. (Mixed.)

In co-operation with the Central Council of Physical Recreation.

2 classes for potential women leaders	January to April, 1945.
1 class for potential women leaders	June to December, 1945.
1 class for potential men leaders	January to March, 1945.
1 class for potential men leaders	October to December, 1945.

Schools Voluntary Associations.

Out-of-schools activities for boys and girls up to school leaving age in Association and Rugby football, cricket, hockey, netball, rounders, swimming and athletics have been carried on under their respective Schools Associations.

In addition, the Schools Hockey Association has started a scheme whereby girls who have left school are given coaching by teachers on Saturday afternoons on one of the Committee's playing fields until they are able to join an adult club. It is hoped thus to fill what is a serious gap, and enable girls to find a place readily in an adult club at an appropriate age.

Parents' Associations connected with boys' schools have been given talks on the Physical Education in schools.

Health Exhibition.

One week of the month's Health Exhibition arranged by the M.O.H. in February-March was devoted to the health of the school child. During that week one window was arranged to show by action photographs and posters the various activities arranged by the Education Committee for the physical education of children of school age and adolescents. In addition, a talk was given on Physical Education in School, Evening Institutes, and Youth Centres by one of the Committee's P.T. Organisers.

J. Bennett.
F. W. Briggs.

XI.—PROVISION OF MEALS.

Miss E. M. A. Wilson, Adviser for Domestic Subjects and School Feeding, has supplied the following information concerning the Provision of Meals during 1945:—

Report on Provision of Meals, 1945.

1. New Dining Centres opened during 1945:—

St. Saviour's	Junior	4th June
St. Patrick's	Mixed	17th September
St. Andrew's	Junior	22nd October
Junior Craft, College of Art		17th September

The following temporary centres which were opened for provision of meals to evacuees closed during 1945:—

Ingle Street	Jun. & Infs.	22nd June
Mantle Road	Infants	29th June
Mellor Street	Juniors	12th May
	Infants	12th May
Narborough Road	Infants	22nd June
Evington C.E.		12th January
Centre for Secondary School evacuees from Vaughan College at Central Dining Centre		19th January

2. Number of departments of Elementary Schools which have Dining Centres attached:—72 (including 4 remaining temporary centres and 7 temporary centres which closed during 1945).

3. Secondary, Grammar and Technical Schools supplied from Central Kitchens:—

Alderman Newton Boys' School ...	85
City Boys' School	135
Gateway Boys' School	110
Junior Craft Girls' School	130

4. Meals served on December 19th:—

Necessitous children	420
Other children (including Secondary, Grammar, and Technical, see 3) ...	5,084
Total ...	5,504

5. Total number of meals supplied:—

Dinners	1,000,903
Lunches for Nursery Classes ...	271,254

6. Schools at which other meals than dinners ware supplied:—
None.

7. New Central Kitchen equipped for service of 2,000 meals daily opened in August at Goldhill, Saffron Lane Estate.

E. M. A. WILSON.

The figures given in the above report by Miss Wilson relate only to meals served from the Central Kitchens and do not include the Special Schools, the Experimental School and those Secondary Schools which have their own kitchens.

Meals from the Central Kitchens have been supplied to 50 Nursery Classes (including 10 war-time Nurseries); the number of these meals is included in the figure given in Miss Wilson's report.

Provision of Milk.

An enquiry made as regards one particular day in February, 1946, showed that the number of children taking milk in school was as follows:—

No. of children receiving $\frac{1}{3}$ pint free of charge ...	269
No. of children supplied with $\frac{1}{3}$ pint on payment	8,814
No. of children supplied with $\frac{2}{3}$ pint free of charge	1,835
No. of children supplied with $\frac{2}{3}$ pint on payment	11,695
Total ...	22,613

The number of children in attendance on that day was 30,622. The percentage of children receiving milk was, therefore, approximately 74%.

The total amount of milk supplied to Elementary Schools during the year was 289,328 gallons. The corresponding figure for 1944 was 326,756 gallons. The reasons for the decrease in the consumption of milk are:—

(1) the return of evacuees;

(2) additional holidays in respect of the cessation of hostilities.

Provision of Orange Juice and Cod Liver Oil.

All children below the age of five years who are in full-time attendance at an elementary school receive regular rations of orange juice and of cod liver oil. The arrangements were described in my Annual Report for 1943.

Provision of Ascorbic Acid (Vitamin C).

As in previous years every child above the age of five years taking dinner at school has received weekly a tablet of 50 milligrammes of ascorbic acid from the beginning of November till the end of April. Each tablet is equivalent to the juice of one large orange or of two smaller ones.

Provision of Iron.

Children in Nursery Classes who are considered by the Medical Officer to be suffering from anæmia or from a condition bordering upon anæmia receive additional iron in the form of ferrous sulphate tablets. Details of the arrangements were given in my Annual Report last year.

XII.—CO-OPERATION OF PARENTS, TEACHERS, SCHOOL ATTENDANCE OFFICERS, AND VOLUNTARY BODIES.

This has been fully described in previous reports and no change has taken place in the year under review.

The proportion of parents attending at the routine medical inspection of their children was:—

Entrants' examination	... ...	86.9 per cent.
Intermediate examination	...	69.1 per cent.
Leavers' examination	... ...	31.0 per cent.

These figures relate to the elementary schools.

Again I am most keenly appreciative of the invaluable assistance in the work of medical and dental inspection which has been rendered by the teachers. To them I would tender my most sincere thanks for their helpfulness and co-operation.

XIII.—BLIND, DEAF, DEFECTIVE AND EPILEPTIC CHILDREN.

(*a*) *Methods adopted for ascertaining and dealing with children who are defective.*

The Head Masters, Head Mistresses and the School Attendance Officers bring to the attention of the School Medical Officer all cases of blindness, deafness and other physical defect under this heading.

The Psychologist to the Education Committee refers to the School Medical Officer all educationally sub-normal children who are considered to be suitable for a Special Schools or to be ineducable.

(*b*) *Arrangements made for the Supervision of Educationally Sub-normal children not in Special Schools.*

These arrangements were described in my Annual Report for 1938. They have remained unchanged since then.

(c) *General Review of the work of the Special Schools during the year.*

Special Schools.

Numbers on the Registers, December, 1945.

Duxbury Road School (educationally sub-normal children)	70
Stoneleigh School (blind, partially sighted and deaf children)	90
Western Park School (delicate children)	175
Total ...	335

Particulars of children examined and treated are given in the following tables:—

Medical Inspection.

A.—Routine Medical Inspection.

Entrants	3
Second Age Group	24
Third Age Group	49
Other Routine	—
Total ...	76

B.—Other Inspections. —

Number of Special Inspections and Re-Inspections ...	748

Classification of Nutrition.

	A	B	C	D	O	Total
Entrants	3	—	—	—	—	3
Second Age Group ...	3	11	10	—	—	24
Third Age Group ...	15	27	6	—	1	49
Other Routine	—	—	—	—	—	—
Total ...	21	38	16	—	1	76

Medical Treatment.

Disease or Defect.	Number of Defects treated, or under treatment during the year.		
	Under the Authority's Scheme.	Otherwise.	Total.
Skin, Ringworm	2	—	2
Skin, Other	97	3	100
Minor Eye Defects	4	—	4
Minor Ear Defects	18	3	21
Vision and Squint	27	3	30
Defects of Nose and Throat ...	8	1	9
Orthopædic & Postural Defects	14	—	14
Other Defects	19	6	25
Total ...	189	16	205

Dental Defects.

(1) Number of Children who were: —

(i) Inspected by the Dentist:—

Routine Age Groups	Aged: 4..... -			
	5..... -			
	6..... -			
	7..... 1			
	8..... 1			
	9..... 3		Total	... 61
	10..... 8			
	11..... 9			
	12.....12			
	13.....10			
	14.....11			
	15..... 6			
Specials	... ...	...	...	14
		Grand Total	...	75

(ii) Found to require treatment 50

(iii) Actually treated at the Clinic 30

(2) Half-days devoted to	Inspection ...	1	Total	1,476
	Treatment ...	*1,475		
(3) Attendances made by children for treatment			...	43
(4) Fillings	Permanent teeth	6	Total ...	6
	Temporary teeth	—		
(5) Extractions	Permanent teeth	15	Total ...	32
	Temporary teeth	17		
(6) Administrations of general anæsthetics for extractions				
	Local	20	Total ...	21
	Gas	1		
(7) Other Operations	Permanent teeth	17	Total ...	17
	Temporary teeth	—		

*No special sessions are devoted to the treatment of Special School Children, therefore this figure is common to all Schools.

The above figures relating to the inspection and treatment of children attending Special Schools have been excluded from the Statistical Tables.

XV.—NURSERY SCHOOLS.

Nursery School at Countesthorpe Cottage Homes.

The thirty-five children at the Nursery School at Countesthorpe Cottage Homes are visited by Dr. Randall once in each term.

Particulars of medical inspection and treatment are given on next page:—

Medical Inspection.

A.—Routine Medical Inspection.

Entrants	18
Second Age Group	—
Third Age Group	—
Other Routine	—
Total ...	18

B.—Other Inspections.

Number of Special Inspections and Re-Inspections	49

Classification of Nutrition.

	A	B	C	D	O	Total
Entrants	1	5	10	1	1	18
Second Age Group ...	—	—	—	—	—	—
Third Age Group ...	—	—	—	—	—	—
Other Routine	—	—	—	—	—	—
Total ...	1	5	10	1	1	18

Medical Treatment.

Disease or Defect.	Number of Defects treated, or under treatment during the year.		
	Under the Authority's Scheme.	Otherwise.	Total.
Minor Ear Defects	1	—	1
Nose and Throat Defects ...	2	2	4
Vision and Squint	3	—	3
Orthopædic & Postural Defects	—	—	—
Other Defects	—	—	—
Total ...	6	2	8

The above figures relating to the inspection and treatment of children attending Nursery Schools have been excluded from the Statistical Tables.

Nursery Classes.

There are, at present, 78 Nursery Classes (including 10 War-time Nursery Classes) attached to 39 Infants' Departments. These classes accommodate children aged 3 and 4 years.

There are, in addition, 5 classes which accommodate children below the age of five years but which are not formally recognised as Nursery Classes.

Meals, Cod Liver Oil, Orange Juice and Iron at Nursery Classes.

The arrangements made for meals at Nursery Classes are described on page 31 of this Report; for the issue of cod liver oil and orange juice on page 31; and for the issue of additional iron to those requiring it on page 32.

XVI.—SECONDARY SCHOOLS AND OTHER INSTITUTIONS OF HIGHER EDUCATION.

The following is a list of Secondary Schools provided by the Authority, together with the numbers of pupils on the rolls:—

Alderman Newton's Boys' School	523
Alderman Newton's Girls' School	305
City Boys' School	448
Collegiate Girls' School	469
Gateway Boys' School	579
Junior Commerce Girls' School	100
Junior Crafts Girls' School	165
Newarke Girls' School	692
Wyggeston Boys' School	942
Wyggeston Girls' School	796
Total	5,019

The arrangements made for the medical inspection and treatment of these children were described in my Annual Report for 1938; they have remained unchanged since then.

At the routine medical inspection of the boys 47.1 per cent. of the parents were present; in the case of the girls 64.5 per cent. of the parents attended the examination.

XVII.—PARENTS' PAYMENTS.

The arrangements for recovering from the parents or guardians contributions towards the cost of medical or dental treatment, meals and milk were described in my Annual Report for 1942. All contributions towards the cost of treatment came to an end on April 1st, 1945. On that day the Education Act, 1944, came into force and on and after that date all treatment at the School Clinics has been given free of cost to the parents.

The following table is a record of payments received from parents, other departments and other authorities towards the cost of medical, surgical and dental treatment during 1945.

Contributions by Parents, Etc.

Nature of Treatment.	No. of Patients treated at a Fee.	£	s.	d.	£	s.	d.
Parents.							
Nose, Ear and Throat ...	145	208	2	0			
Dental	1,856	103	7	6			
X-ray	—		—				
Orthopædic (Treatment)	57	34	12	0			
(Apparatus)	2	6	0	11			
Artificial Sunlight ...	87	33	13	9			
Remedial Exercises ...	35	11	2	0			
Mablethorpe Camp ...	—		—				
Spectacles	75	44	6	2			
Vision	96	24	0	0			
					465	4	4
Desford Boys' School.							
Nose, Ear and Throat ...	—		—				
Vision	—		—				
					—		
Health Committee.							
Artificial Sunlight ...	—	532	1	0			
Orthopædic (Treatment)	—	444	17	7			
(Apparatus)	—		—				
Nose, Ear and Throat ...	120	80	9	6			
Dental	217	333	4	10			
Vision	—		—				
Skin and Minor Ailments	85	45	13	0			
					1,436	5	11
Mental Deficiency Committee.							
Dental	193	88	4	0			
Orthopædic	—		—				
					88	4	0
Public Assistance Committee.							
Orthopædic	—		—				
Nose, Ear and Throat ...	—		—				
Vision	—		—				
					—		
Leicestershire County Council.							
Nose, Ear and Throat ...	269	349	12	0			
Orthopædic	331	340	0	2			
Woods' Glass Exams. ...	7	2	12	6			
					692	4	8
					£2,681	18	11

XVIII.—HEALTH EDUCATION.

A Health Exhibition was held for four weeks from February 26th to March 24th. The second week of this period, March 5th to 10th, was devoted to a display by the School Medical Service and allied services. These latter included:—

School Psychological Service
School Meals Service.
Nursery Classes.
Open-air School.
Special Schools for Blind, Deaf and Retarded Children.
Physical Training.
Speech Therapy.
Juvenile Employment Bureau.

The main display was in the windows of the Electricity Department in Charles Street with subsidiary displays at the Museum, in Rutland Street and in Horsefair Street. The Domestic Science College organised a separate, but related, display in Halford Street. In addition to the window exhibits the shop in Rutland Street was staffed as a centre where information could be obtained and where health literature was distributed. At the adjoining cinema belonging to the Electricity Department a series of films relating to health were shown. These were varied by short ten-minute talks on various aspects of health and by cookery demonstrations.

The exhibition attracted large numbers of people who appeared to be keenly interested. The information centre was kept very busy and a large amount of literature was distributed.

The preparation of the exhibits involved an enormous amount of labour and I am very keenly appreciative of the hard work put in by the staffs of all the above-named services and institutions. In addition my sincere thanks are due to the Ministry of Information who provided the films displayed; to the Electricity Committee, the Civil Defence Committee and the Publicity and Development Committee for the loan of premises; and to the Museum Committee for the grant of display space and for the loan of certain exhibits. I am particularly grateful to the College of Art whose students designed posters, prepared diagrams and lettered a number of the display cards. To the Editor of the "Illustrated Leicester Chronicle" my thanks are due for the gift of photgraphs illustrating the work of the School Clinics.

XIX.—SPECIAL ENQUIRIES.

1. Epidemic Jaundice. (Infective Hepatitis.)

By Dr. A. C. Turner.

A remarkable outbreak of epidemic jaundice occurred during the first half of 1945 at Wyvern Avenue School. This is an infants' school with just over 400 children on the registers.

This disease is one that has long been known though it is only of late years that its infectious nature has been realised. Formerly it was ascribed to some catarrhal condition of the bowel causing obstruction of the bile duct. It is now recognised as being due to an infection by a virus, i.e. an organism so small as to be invisible under the microscope.

The condition has come into considerable prominence during the war years when there was an extensive outbreak among the army engaged in the North African campaign. Hitherto the City of Leicester has been free from any epidemic of this nature though sporadic cases have occurred from time to time. There was, however, an outbreak in the County of Leicestershire in 1936 when 40 cases were reported, mainly at Newbold Verdon.

The first case at Wyvern Avenue School occurred at the end of January; another occurred in February and two more in March. In April there was a sudden flare up and fifteen cases were reported during this month. Three more cases occurred in May and twelve were recorded in June, the total number of cases being thirty-four.

A meeting was held at the Public Health Office on May 18th at which were present Dr. Knox of the Emergency Public Health Laboratory and Dr. Pollock of the Jaundice Laboratory, Cambridge. The school was visited and the Headmistress advised as to the early symptoms of the disease and the precautions that should be taken to prevent its spread. These included:—

1 The immediate exclusion of any child who seemed feverish or out of sorts.

2 The very thorough cleansing of all articles of crockery or cutlery used in connection with school dinners and in particular, the scalding of mugs used for the supply of milk in school.

3 Particular attention to thorough washing of the hands after using the water closet.

Arrangements were made for the school nurse to attend the school daily in order to examine all children present and to exclude any who appeared to be out of sorts. This began on May 29th when the school re-assembled after the Whitsuntide holiday. Between that date and the end of the July she excluded 14 children who subsequently developed jaundice and also 63 children who suffered from slight rise of temperature (99°—100°), nausea, vomiting or abdominal pain who did not develop jaundice.

The last child to develop jaundice showed the first signs of illness on June 28th, i.e., thirty days after the daily inspection by the nurse was started. After that date the epidemic stopped abruptly. The usual incubation period of the disease is 28 days and it would therefore appear possible that the daily visit of the nurse and the exclusion of any child presenting the slightest sign of illness may have been the chief factor in stopping the outbreak.

Of the 34 cases who developed jaundice 20 were boys and 13 girls, all of whom were below the age of eight years. The remaining case was the teacher of one of the classes. Cases occurred in eight of the ten classes in the school the heaviest incidence being in Class 1A, a class of children aged 6-7 years, where ten children and the teacher were affected.

In three cases a pair of children living in the same house developed jaundice. The intervals between the dates of onset in these pairs were 4, 9 and 53 days so that in no case can the second members of the pair have caught the complaint from the first as the incubation period of the disease is from 20 to 40 days, usually about 28 days.

On studying the recorded symptoms of the 63 children who had all the initial symptoms of the disease yet did not develop jaundice one is forced to consider the possibility that infection with this virus may be far more widespread than is yet realised and that only a small proportion of the cases may develop jaundice as a symptom. This suggestion, I am informed, has been put forward before, notably in America. As the causal organism is unknown and there is no serological test for the disease it must, for the present, remain a speculation merely.

2.—The Iron Content of Leicester School Meals.

By Members of the Staff of King's College of Household and Social Science.

The object of this survey was to obtain data on the iron content of the midday meals served in the Leicester schools.

(a) To Infants.
(b) To Juniors and Seniors.

The meals are cooked at a central kitchen depot, and distributed to the schools in containers, a different meal being prepared and served to the infants than to the juniors and seniors.

Method of Investigation.

At first it was proposed to estimate the iron content of the meals analytically, but this idea had to be abandoned owing to the shortage of laboratory equipment. It was decided therefore to calculate the iron content of the meals by the use of food tables.

(*a*) *Sampling.*

During service we weighed helpings on plates taken at random, as the children collected their meals. Approximately 8 servings were weighed daily for each age group, over a period of one week.

(*b*) *Estimation.*

Average figures of Chemical composition, provided by food tables (1)* were applied to the average portions of food consumed.

The iron content of composite dishes was computed on the basis of the composition of the component ingredients, allowances being made for change in weight during cooking.

*(1) Food tables used were:—
(a) Chemical Composition of Foods. McCance and Widdowson. 1940.
(b) Nutritive Value of Wartime Foods. M.R.C. 1945.

Findings.

Table I shows the menu and the iron content of the meal served.

Table I.

Groups I.—Infants, aged 3—6 years.

Menu.	Mgs. of iron per average meal.
1st day.	
Roast Beef—Potatoes—Peas—Gravy. Bakewell Tart and Custard.	2.79
2nd day.	
Stew—Potatoes—Steamed Date Pudding and Custard.	2.77
3rd day.	
Roast Mutton—Potatoes—Swedes—Gravy Sultana Rice Pudding.	1.92

4th day.
Filchards—Potatoes—
Haricot Beans—Sauce 4.50
Bread and Butter Pudding.

5th day.
Roast Muton—Potatoes—
Haricot Beans—Gravy 2.26
Ground Rice Pudding.

Table II shows the menu and the iron content of the meals served to the Juniors and Seniors.

TABLE II.

Menu.	Mgs. of iron per average meal. Group II (Aged 6-11 years)	Group III (Aged 11-14 years)
1st day.		
Mince—Potatoes— Swedes ... ... Baked Sponge Pudding and Custard.	3.21	3.40
2nd day.		
Cold Ham—Potato— Peas—Gravy. ... ... Rice Pudding.	2.27	2.24
3rd day.		
Stew—Potatoes— Jam Tart and Custard ...	2.60	2.62
4th day.		
Roast Mutton—Cabbage— Potatoes—Gravy. ... ... Rice Pudding.	2.40	2.90
5th day.		
Roast Pork—Potatoes— Haricot Beans—Gravy. ...	3.34	4.17

Consideration of Findings.

The average figures of the iron content of these meals obtained from the findings contained in Tables I and II are as follows:—

Group I	2.85 mgs.
Group II	2.76 mgs.
Group III	3.07 mgs.

The figures quoted in this report refer to total iron only, a proportion of the iron in foods is not assimilated and therefore is not available to the body. The percentage of iron available varies widely in different foods, but as yet accurate quantitative data on this point is still fragmentary and no attempt has been made to estimate the proportion of available iron.

Total iron intakes as calculated from food tables should be regarded as minimum values (McCance & Widdowson, "Lancet," February 20th, 1943, p. 230). Foods tend to accumulate iron in

the ordinary processes of food preparation because of contamination from cooking utensils.

The size of helpings varied very much especially in the proportions of vegetables served. We found that juniors were sometimes served with the same or even larger helpings of vegetables than the older children, and this was especially noticeable on the second day of the survey. In general, however, helpings were smallest for the youngest children, intermediate for the age group 6—11 years and largest for the oldest group.

The effect of including haricot beans in the menu on the 5th day for Groups II and III can readily be seen. Approximately 90% of the children ate the beans. This effect is also noticeable for Group I on the 4th day, but pilchards also contributed to the higher figure appearing.

The higher average figure of the iron content of the meals for the infants than for the other two age groups is explained by the higher proportion of meat in the diet. But there is some doubt as to the availability of the iron in meat. Evidence suggests that the iron in vegetables is more available.

Adequacy of the Iron Content of the Meals.

The U.S.A. National Reserve Council recommend the following daily allowances of total iron:—

Age Group.	4-6 years	7-9 years	10-12 years	13-15 years
Iron Mgs.	8	10	12	15

It is generally recognised that a midday meal should provide $\frac{1}{3}$ of the day's requirements of Iron.

In the case of the younger children—the 3-6 yrs. age group and the younger children of the 7-11 yrs. age group—the School meals appear to meet this target, but for the older children the proportion falls from just under $\frac{1}{3}$ being provided for a child of 10 years (2.85 mgs. average target 12 mgs.) to approx. 1/5th for a child of 14 (3.07 mgs. average target 15 mgs.).

This leaves the remainder of the day's requirement to be provided by meals at home, for the school milk ($\frac{1}{3}$ pint) only provides 0.15 mgs. iron. As there is evidence of a widespread partial deficiency of iron we feel that steps should be taken to raise the iron content of the school meals as far as possible, with a view to providing all the children with at least $\frac{1}{3}$ of the day's requirements.

We would recommend that as much dried egg should be incorporated into the school dinners as possible, for there is evidence that the iron in egg yolk is one of the most available sources in the diet, and that the following foods be served frequently—prunes, figs, dried apricots and other dried fruit, and green leafy vegetables. Cocoa incorporated in dishes as a flavouring would also help to raise the iron content of the meal. Liver and black treacle are excellent sources of iron, and their inclusion in the diet, whenever they are available, is to be recommended.

F. Robinson.
J. Walsh.
A. M. Hamilton.

XX.—MISCELLANEOUS.

1.—Employment of Children and Young Persons.

The arrangements made for the medical examination of employed children and for co-operation with the Certifying Factory Surgeons were described in my Annual Report for 1938.

During 1945, children have been examined as is given hereunder:—

No. of First Examinations ...	610
No. of Re-examinations	206
Total of Examinations	816
No. of Certificates Granted ...	803
No. of Certificates Refused ...	13

Details of Certificates Granted.

	Boys.	Girls.	Total.
Newspaper Delivery	575	73	648
Errands	92	—	92
Milk Delivery	22	—	22
Shop Assistants	28	2	30
Performances on Stage	—	7	7
Helping in Bakery	3	—	3
Helping in Surgery	1	—	1
	721	82	803

Details of Certificates Refused.

Temporarily : 10.—(anæmia 3, bronchitis 3, skin disease 2, injury 2).

Permanently : 3—(lung disease 1, poor physique 1, orthopædic defect 1).

Last year a steady rise in the employment of girls was noted but there is now a very considerable decrease.

2.—Report on Work in connection with the Juvenile Court and the Remand Home.

This work has been performed by Dr. McAlpine, who reports as follows:—

There has been no change in the methods adopted for the examination of children for the Juvenile Court and Remand Homes.

The serious lack of vacancies in the residential special schools for educationally sub-normal children has added greatly to the already difficult task of making suitable recommendations to the Juvenile Court for the disposal of the less intelligent young offenders. Not infrequently the home conditions are such that removal from the normal surroundings becomes imperative if any improvement in the behaviour of the young delinquent is to be effected. The ineducable cases can be dealt with comparatively easily by placement in an

institution, but those of educable grade present a serious problem of almost insuperable difficulty in the absence of available accommodation in a residential special school. Two boys from the day special school in Leicester were before the Juvenile Court recently. In both instances the bad home conditions were obviously the root of the troublesome behaviour. Although each was of suitable age and mental grading for admission to a residential special school, it was quite impossible to find vacancies. The Bench recommended notification under the Mental Deficiency Act in order that they might be dealt with by being placed in an institution. I was unable in either instance to comply with that recommendation because I could find no authority in the Education Act to notify children solely on account of unsuitable home surroundings. The head-teacher reported that both boys were capable of instruction in his school and that their presence was not seriously detrimental to the interests of the other children there. This simply meant that the machinery of the Juvenile Court could in no way alter the conditions which gave rise to the behaviour problems of these boys. The cases quoted are typical of the difficulties created by the lack of residential special school accommodation. There appears to be no satisfactory solution apart from a very considerable immediate increase in the number and size of such establishments throughout the country.

The case of an educationally sub-normal 15 year-old girl deserves special mention on account of the difficulty experienced in making any practically useful recommendation to the Court. She had been brought before the Bench at the instigation of the parent on account of her persistent refusal to go to work. She refused to rise in the morning in time for work and frequented cinemas in preference to attending her employment. The mother could not afford to maintain the child without some financial help from the girl's own earnings. The girl, aged 15 years 6 months, had an intelligence quotient of only 59 on the Terman Merrill scale, with a corresponding weakness in academic subjects. The trouble with her employment seemed likely to persist indefinitely and admission to an institution for mental defectives obviously offered the only satisfactory solution to the problem. The parent was quite willing that this procedure be adopted, but it was found quite impossible to take any action on these lines before the daughter attained the age of 16 years. In common with many other children of similar mental grading in the City, she had been instructed in a special class for educationally sub-normal children in an ordinary school and became exempt from school attendance at the age of 14 years. No serious behaviour problem was evident during her school years and, owing to the limited number of places, the question of her transfer to the day special school was never considered. Fortunately from one point of view at least, this particular girl was of rather sullen disposition and did not associate with companions of either sex of her own age or otherwise. Thus, she was in no special moral danger from the sex aspect. Even if she had been in grave moral danger, it would have been equally difficult to secure her early admission to an institution. The Mental Deficiency Authority did not consider her subject to be dealt with under the Mental Deficiency Act before the age of 16 years, because she had not been notified for statutory supervision.

As she had been allowed to leave school at 14 years, her case was not covered by Section 57 of the Education Act, 1944. Hence, she could not be notified under that Section, nor could she be examined for belated admission to a special school under Section 34 (1). What happened in fact was that she was placed under the supervision of the Probation Officer and had to return to her own home under circumstances almost identical with those which caused the mother to seek the advice and assistance of the Juvenile Court.

The accompanying table gives a summary of the work done, with the corresponding figures for the previous year in brackets for comparison:—

Individual Children:—	Boys ...	140	(122)
	Girls ...	50	(52)
	Total ...	190	(174)
Examination to exclude infectious or contagious disease		186	(158)
Full mental and physical examination ...		111	(95)
Other examinations		24	(37)
Total number of examinations		321	(290)
Special reports to Court		21	(14)
Attendances at Court for purpose of giving evidence		6	(6)

K. McAlpine.

3.—Speech Therapy.

Miss Perkins, the Speech Therapist, reports as follows:—

The organisation of the Speech Therapy Service has not changed in any material respect during the year 1945. There has, however, been one important personal change. Miss Allen received leave of absence at the end of September to spend ten months further study and training in London. Miss Lane was appointed to serve in her absence.

Children have continued to be referred by teachers and School Medical Officers, and it has been generally possible to avoid any delay in their treatment which has been carried out at five main clinics—Hazel Street School, Northfield Lodge Clinic, St. Saviour's Church Hall, All Saints' School, and the Education Office—and seven supplementary clinics at the following Schools:—Ingle Street Infants', Alderman Richard Hallam Infants', Western Park Open Air School, Hinckley Road Infants', Moat Road, Melbourne Road Infants' and Medway Street Junior. A main clinic is, in effect, a centre at which children can attend from a group of schools. A supplementary clinic is a temporary organisation in a school which has sufficient cases to warrant a series of visits by one of the Therapists.

As in previous years, the majority of cases referred have been those of speech defects other than stammering. The figures in the appendix provide further data, and give some idea of the results of treatment.

The Service has been available for children in the County Area whose homes are accessible.

In March the Speech Therapy department provided a portion of the Exhibition at the Electricity Show Rooms which illustrated the City Health Services. The exhibits were a Model Speech Clinic, appartus and photographs showing the work in existing clinics.

The Speech Therapists have continued to provide a weekly honorary clinic at Leicester Royal Infirmary which has been attended by adults and certain students from the Technical College.

Number of Children Receiving Treatment at the end of 1944.

	Stammerers.	Speech Defects.	Total.
Seniors	28	11	39
Juniors	36	40	76
Infants	8	68	76
			191

Results.

The following analysis of the number of children discharged during the year is based on reports given by Head Teachers of the children concerned.

	Stammerers.	Speech Defects.	Total.
Seniors	13	14	27
Juniors	15	18	33
Infants	5	33	38
Total No. of Children discharged			98

R.E. Perkins.

4.—Examination of Scholarship Candidates, Teachers and Others.

During 1945 medical examinations were made of 67 nurse students, 141 teachers, 8 intending teachers, 158 domestic science students and 49 officers and servants of the Education Committee.

5.—Visits to Central Clinics.

Visits of inspection have been made at Richmond House by:—

(a) Students from King's College of Household and Social Science	49
(b) Students from the Domestic Science College ...	21
(c) Students from Bedford Training College ...	6
(d) Nurses training as Queen's Nurses	19
(e) Miscellaneous	13
Total ...	108

XXI.—STATISTICAL TABLES.

MINISTRY OF EDUCATION.

Medical Inspection and Treatment Returns
Year ended 31st December, 1945.

TABLE I.

Medical Inspections of Pupils attending Maintained Primary and Secondary Schools.

A.—Routine Medical Inspections.

Number of Inspections in the prescribed Groups—

Entrants	3,134	95*
Second Age Group	3,285	177*
Third Age Group	3,143	269*
Total ...	10,103	
Number of other Routine Inspections	21	
Grand Total ...	10,124	

B.—Other Inspections.

Number of Special Inspections and Re-Inspections ... 45,527

TABLE II.

Classification of the Nutrition of Pupils Inspected during the Year in the Routine Age Groups.

Age-groups	Number of Pupils Inspected	A (Excellent)		B (Normal)		C (Slightly subnormal)		D (Bad)		O (Obesity)	
		No.	%	No.	%	No.	%	No.	%	No.	%
Entrants ...	3,229	749	23·2	2,095	64·9	357	11·1	8	0·2	20	0·6
Second Age-group	3,462	748	21·6	2,000	57·8	633	18·3	26	0·7	55	1·6
Third Age-group	3,412	855	25·1	2,010	58·9	485	14·2	8	0·2	54	1·6
Other Routine Inspections ...	21	8	38·1	7	33·3	5	23·8	—	—	1	4·8
Total ...	10,124	2,360	23·3	6,112	60·4	1,480	14·6	42	0·4	130	1·3

*Inspections in Secondary Schools between 1st January, 1945 and 31st March, 1945.

MAINTAINED PRIMARY AND SECONDARY SCHOOLS.

TABLE III.

Group I.—Treatment of Minor Ailments
(excluding Uncleanliness, for which see Table V.).

Total number of Defects treated or under treatment during the year under the Authority's Scheme	12,275

Group II.—Treatment of Defective Vision and Squint
(excluding Minor Eye Defects treated as Minor Ailments—Group I.).

	Under the Authority's Scheme.
Errors of Refraction (including Squint)	2,097
Other Defect or Disease of the Eyes (excluding those recorded in Group I)	2
Total	2,099

	Under the Authority's Scheme.
Number of Pupils for whom spectacles were:—	
(a) Prescribed	1,385
(b) Obtained	1,332

Group III.—Treatment of Defects of Nose and Throat.

	Under the Authority s Scheme.
Received Operative Treatment	1,016*
Received other forms of Treatment	485
Total number treated	1,501

*One mastoid operation is not included in this figure.

MAINTAINED PRIMARY AND SECONDARY SCHOOLS.

TABLE IV.

Dental Inspection and Treatment.

(1) Number of Pupils inspected by the Dentist:—

(a) Routine Age Groups	Aged:	3..... 164 4..... 503 5.....1042 6.....1126 7.....1145 8.....1508 9.....1691 10.....1685 11.....1492 12.....1501 13.....1382 14..... 382 15..... 200 16..... 144 17..... 56	Total	14,021
(b) Special				2,529
(c) TOTAL (Routine and Special)				16,550

(2) Number found to require treatment				8,900
(3) Number actually treated				5,846
(4) Attendances made by Pupils for treatment				*12,729
(5) Half-days devoted to	Inspection ...	134	Total	1,609
	Treatment ...	1,475		
(6) Fillings	Permanent teeth	4,174	Total	§4,234
	Temporary teeth	60		
(7) Extractions	Permanent teeth	1,938	Total	†10,657
	Temporary teeth	8,719		
(8) Administration of general anæsthetics for extractions				
	Local	6,642	Total	‡6,749
	Gas	107		
(9) Other Operations	Permanent teeth	2,105	Total	‖2,115
	Temporary teeth	10		

*In addition 199 children attended at the Clinic for re-inspection, but were found not to require treatment.

‡Includes 13 root fillings in incisor teeth.

†Includes 87 extractions for regulation purposes.

§Of these cases, 3 were admitted to Elbow Lane Clinic and treated under ether administration.

‖Includes 42 X-rays, 12 Dentures and 1 Crown, 80 Regulation appliances.

MAINTAINED PRIMARY AND SECONDARY SCHOOLS.

TABLE V.

Verminous Conditions.

(i)	Average number of visits per school made during the year by the School Nurses	23
(ii)	Total number of examinations of Pupils in the schools by School Nurses	113,406
(iii)	Number of individual Pupils found unclean ...	2,827

TABLE VI.

A.—Blind and Deaf Pupils.

Number of totally or almost totally blind and deaf pupils who are NOT at the present time being educated in a Special School. The return should relate to all such pupils including evacuees resident in the Authority's area.

	At a Maintained Primary or Secondary School. (1)	At an institution other than a Special School. (2)	At no School or Institution. (3)
Blind Pupils	—	—	—
Deaf Pupils	—	—	—

B.—Educationally Sub-normal Children.

	Total number of children reported by the Local Education Authority to the Local Mental Deficiency Authority during the year ended 31st December, 1945	32

APPENDIX.

THE LEICESTER SCHOOL MEDICAL SERVICE 1905-1945.

By Dr. A. C. Turner.

A.—The Beginning.

Just over forty years ago the Leicester Education Committee inaugurated the School Medical Service by appointing Dr. Allan Warner, Assistant Medical Officer of Health, as their first School Medical Officer. This was two years before the Education Act of 1907 rendered such appointments general throughout the country.

Dr. Warner took up his duties on October 18th, 1905. The accommodation assigned to him was one small room in the De Montfort Chambers in Horsefair Street. He had no staff to assist him, not even a clerk, and the problems he had to grapple with were enormous and unexplored.

On account of the higher birth rate of that time there were more children in the Elementary Schools then than now. The number of children on the rolls of the Elementary Schools was in 1905 the highest ever recorded, 41,020; the corresponding number today is about ten thousand fewer. The average age for leaving school was $13\frac{1}{2}$ years.

The conditions of the poorest of these children was such as would send a modern teacher running to the telephone. Vermin and ringworm were rife and in his first report Dr. Warner mentioned the large number of neglected children who were constantly suffering from sore eyes, mouths and ears, impetigo, anæmia and swollen glands, the results of dirt, want of food and general neglect.

Parental neglect did, on occasion, reach appalling levels. The case is mentioned of one girl who returned to school after an absence of three years. On examination it was found that she had a profusely discharging abscess of the lung (empyema) which had burst itself and had been discharging for six months without any treatment whatever.

As regards school buildings the best of them were very fine indeed. There had been erected during the preceding ten years a group of nine large schools accommodating about 1,500 children in each. These were magnificent buildings; even today they are reckoned very fine schools.

Unfortunately, by no means all of the schools were of this standard and some of the smaller and older schools were most depressing places, dark, dirty and insanitary. Classrooms in the worst of these schools were inadequately lit by small, diamond paned windows which were designedly placed high up in the wall to discourage curiosity as to what was going on outside. Artificial lighting was by gas jets of the batswing type; the new-fangled incandescent mantle was only slowly making its appearance. Floors were worn down by generations of hob-nailed boots until the knots in the planks often projected to dangerous heights.

There were only two shades of paint known to the school decorator of those days, chocolate brown and a dark olive green. These served admirably the purpose of concealing the grime accumulated on the walls but it was difficult to decide which was the more depressing of the two. Desks were long and backless and it had not yet dawned upon anybody that children in the same class might be of different sizes.

Nursery classes, in the present-day sense, were unknown but many of the schools had baby rooms accommodating children of three and four. These children sat on a bench running round the room against the wall; once they were seated they were retained in place by a wide shelf which was attached to the wall by hinges and which was dropped down in front of them. Children in those days learned early that "Life is real, life is earnest."

Playgrounds in many of these smaller schools were so tiny and crowded that the playing of games was impossible. Some were asphalted, many were cobbled and a few were paved with granite chips calculated to inflict the maximum amount of injury to hands and bare knees in the event of a tumble.

Perhaps the worst feature of those older schools was the cloakrooms. These would have as many as four or five rows of closely set hooks so that wet and dirty garments were piled upon one another giving ideal conditions for the transfer of vermin from one child to another. The cloakrooms were, of course, unheated so that wet clothing could not be dried; often the only ventilation was into the adjoining classroom which was permeated by the odour of sodden, dirty clothing.

Warm water for washing was an unheard of luxury and even the cold water was doled out parsimoniously by a spring tap which afforded a scanty trickle only as long as pressure was applied to it. After Monday the condition of the roller towel (singular) was seldom such as to encourage a fastidious person to make us of it. Wash basins were frequently of rusty iron with fragments of enamel still adhering in places; three schools, however, were without a fixed wash basin.

The sanitary arrangements consisted of a row of seats above a long cast-iron or earthenware trough. This was flushed by the caretaker whenever his more important duties gave him leisure to attend to it. Fortunately, on a hot day, the sense of smell rapidly became blunted.

Only one Special School was in existence, at Short Street, which accommodated 32 deaf mutes. There were, however, for mental defectives three certified Special Classes at Willow Street School and three uncertified Special Classes, two at Elbow Lane and one at Mantle Road School. There were also two Special Classes for dull and backward children at Hazel Street and Ingle Street Schools.

There were no arrangements for supplying meals at school. At the Special School children brought their dinners with them.

The Baby Room (old style).

A Modern Nursery Class.

Needless to say there were no School Clinics where advice or treatment could be obtained for an ailing child. The arrangements for medical treatment were:—

(a) The private medical practitioner. Unfortunately many of the parents were quite unable to pay even a small fee.

(b) The Royal Infirmary, where free treatment was given to those children whose parents could obtain a letter of recommendation from a subscriber.

(c) The Skin Hospital where a letter of recommendation entitled a patient to two months treatment, either free or at a small fee. A number of these letters were supplied to Head Teachers who signed them for such children as they considered suitable.

(d) Various medical clubs, the largest of which was the Provident Dispensary (the precursor of the present Public Medical Service), provided treatment at a small fee to subscribers.

(e) One of the Ophthalmic Surgeons practising in the City, had, since 1898, examined and prescribed without charge for five necessitous school children each week of the school year. Glasses were paid for by the Education Committee from a special fund, and about 200 patients were treated each year.

Such, briefly, were the conditions under which the School Medical Service came into being.

B.—Growth.

1906.

The Education Committee acted with promptitude on the reports received from their new medical officer. In October, 1906, as the result of a report on the dirty condition of children at Overton Road School, it was decided that special lessons in personal cleanliness were to be given and a slipper bath and a disinfector for clothing installed at this school.

1907.

In January, 1907, the first full-time School Nurse was appointed as a temporary measure. Prior to this a part-time nurse had been employed on various occasions to examine the children in particular schools. In September, 1907, Dr. Warner reported that the nurse had examined 5,000 children of whom 470 were found to be infested with body lice and the Committee evidently considered that she had justified her appointment which, in October, 1907, was made a permanent one.

1908.

The Education (Administrative Provisions) Act of 1907, which came into force at the beginning of 1908, made it compulsory for every Local Education Authority to make arrangements for the routine medical inspection of school children and the Board of Education prescribed that these examinations were to take place (a) soon after the child entered school, and (b) shortly before the child left school. From the beginning of 1908 therefore two age groups, the entrants and the leavers, were examined as a routine measure.

Though it was incumbent upon the Local Education Authority to make provision for the routine medical inspection of school children it was not until the passing of the Education Act of 1944 that it became compulsory for parents to allow their children to be examined. Actually, refusals to have children examined were infrequent although the new procedure was regarded by many parents with the deepest suspicion. Indignation was often voiced, particularly when a mother was asked to undress a child who had been sewn up for the winter. This was a not uncommon practice among the younger children in the poorer schools, the child's clothes being stitched on after a chest protector of brown paper soaked in goose grease had been first applied to the skin.

Why goose grease was selected for this purpose I am unable to say. Probably some principle of sympathetic magic was involved as in so many superstitions. Thus it was usual, at that time, to find a young child wearing a necklace of blue beads as a charm against bronchitis. Here the reasoning was obvious; when skies are blue you do not get bronchitis, therefore, blue prevents bronchitis. Again it was quite common for a mother on being informed that her daughter needed glasses, to say:—"No, I'll have her ears pierced instead." Here again the reasoning was on the lines of sympathetic magic. Sailors wore ear-rings; sailors, proverbially, had keen sight. The conclusion was at once obvious to any thinking parent.

1910.

The duties imposed by the Education Act of 1907 necessitated additional staff and in April, 1908, a clerk was appointed to assist Dr. Warner. The single room in De Montfort Chambers also proved quite inadequate for the work and, in 1910, the office was moved to two small rooms in the Town Hall. Even these enlarged premises were not always adequate for the amount of work performed. The waiting room for patients was represented by a single bench in the outer office and when, frequently, this proved insufficient for the numbers waiting the overflow sat on the stairs to the intense indignation of the School Attendance Officers who occupied the rooms above.

1911.

In 1911 an assistant medical officer was appointed. In the same year two important developments occurred with regard to delicate children. A playground class for 40 delicate children was started at Mantle Road School; this was the first pre-cursor of the Open-Air School and continued until 1933. The Education Committee also came to an arrangement with the Leicester Summer Camp Committee for the use of their camp at Mablethorpe for two months during the autumn. Forty delicate children were selected by Dr. Warner and spent two months at the seaside. Two teachers accompanied the children and all lessons were taken in the open. On their return to Leicester the children were found to have derived considerable benefit from their stay at Mablethorpe. The arrangement was continued anually, except for the years 1915—1918 when the camp was requisitioned by the Army, until the outbreak of war in 1939 when the camp was requisitioned as a First Aid Post. After 1918 however the duration of stay at the seaside was reduced to one month and two batches of children were sent in each year.

A further step of great importance taken by the Education Committee during 1911 was the formation of two special classes at Church Gate School for blind, partially sighted and short-sighted children. No provision had previously been made in Leicester for blind children who were sent to various residential schools.

1913.

By the year 1913 routine medical inspections had been in progress for five years and it had become obvious that the existing agencies for treatment were wholly inadequate to deal with the numbers of defects found to exist among school children. In July, 1913, the Education Committee, using the powers conferred by the Medical Treatment Act, 1909, took the important step of initiating a School Clinic for the treatment of children. An additional room at the Town Hall was secured for use as a clinic for skin diseases and minor ailments and arrangements were made with the Public Medical Service for the use of rooms at Bond Street for an eye clinic, held on one afternoon a week; an ear, nose and throat clinic, held on one afternoon a week; and a dental clinic, held on two afternoons a week. Operations for the removal of tonsils and adenoids were performed in the adjoining Faire Hospital on one afternoon every alternate week; the children operated upon were not normally kept in hospital over night but were allowed to go home a few hours after operation.

Three part-time doctors and one part-time dentist were appointed to give the necessary treatment. A second full-time nurse was also added to the staff.

Great care was taken that no child was treated at the clinic whose parents could afford an ordinary fee. A Clinic Investigation Officer was appointed to investigate the incomes of applicants, arrange appointments and assess the fee payable, if any, according to a scale determined by the Committee.

The new departure got under way but slowly; by the end of the year 300 children had made 812 attendances and the number of nose and throat operations performed was 22, whilst 118 children had been provided with glasses.

1914.

By 1914, however, the amount of work performed at the School Clinic was increasing rapidly. Arrangements were made for the eye clinic and the ear, nose and throat clinic to be held on three half-days per fortnight instead of two; operations were performed each week instead of each fortnight; and the dentist devoted two days a week instead of one to the work of the clinic and to dental inspections in the schools.

To deal with the general increase in work another full-time assistant medical officer was appointed in April. At the same time a third school nurse was appointed. On the outbreak of war in August one of the assistant medical officers and one of the school nurses were mobilised with the Territorial Army so that the staff actually remained as before.

1915-16-17.

The work of the School Clinic continued to grow and in September, 1915, a full-time dentist was appointed. A new development occurred in December, 1916, when an X-ray apparatus for the treatment of ringworm was installed in a cellar at the Town Hall. In 1917 two more school nurses were appointed raising the total number to six, of whom two were absent on military service.

1918.

In 1918 the remaining assistant medical officer was lent to the County Education Authority. Routine medical inspections in the schools were discontinued, the selection of children for medical examination being made by the teachers assisted by the school nurses. Two more school nurses were appointed for this work. Fortunately it proved possible to continue, and even to extend, the work of the School Clinic and, in response to an appeal to the local branch of the British Dental Association, ten of the dentists practising in the town formed a rota and each gave one session per week to clinic work, the single full-time dentist being, by now, overwhelmed with patients.

1919.

In 1919 both of the assistant school medical officers returned to their ordinary duties and the routine medical inspections in the schools were resumed. The increasing work of the School Clinic required the appointment of additional staff. A full-time ear, nose and throat surgeon was appointed to deal with the ever increasing number of children requiring operative treatment, and a second full-time dentist replaced the rota of part-time dentists appointed in the previous year. Two additional school nurses were appointed bringing the total to nine.

The numbers of children attending the Skin Diseases and Minor Ailments Clinics increased so rapidly that in May, 1919, a second clinic for these conditions was opened at Willow Street School. The numbers attending soon proved too great for the accommodation available and early in 1920 this clinic was transferred to the Public Medical Service Building in Chester Street.

1920.

The numbers attending the Skin Diseases and Minor Ailments Clinic at the Town Hall proved to be too great for the very limited accommodation there available and, in 1920, this clinic was transferred to three rooms at the Guest House in the Newarke.

During 1920 the scheme of routine medical inspection was enlarged to include the examination of a third age group, the intermediates, i.e., children aged eight years.

In July, 1920, the Education Committee appointed an instructor in Physical Training to the Elementary Schools.

Hitherto the children attending the Secondary Schools had not been subject to routine medical inspection though at one of them, the Wyggeston Girls' School, the entrants had, since 1916, been examined by a part-time woman doctor. In the autumn of 1920 routine inspections of all children attending the Secondary Schools were begun.

1921.

It had long been obvious that the premises available were altogether insufficient for the numbers of children attending the School Clinic. The Education Committee therefore purchased and reconstructed Richmond House, and in January, 1921, this was opened as a Central Clinic. The accommodation included an operating theatre and a ward containing twelve beds; an ear, nose and throat clinic; rooms for the medical officers and residential accommodation for two nurses and a ward maid. This enabled all children recovering from an operation to be kept over night which had not previously been possible.

The two rooms at the Town Hall which had previously been used by the School Medical Officer were converted into a Remedial Exercises Clinic for the treatment of minor deformities and a full-time remedial gymnast was added to the staff.

1921.

A new development of the School Medical Service during 1921 was the examination of children whom it was proposed to employ out of school hours. Previously there had been no medical examination of these children. In all 871 children were examined of whom 20 were considered permanently unfit and 9 temporarily unfit whilst in 13 cases a certificate was refused because the proposed occupation seemed altogether too strenuous for a child of twelve or thirteen. In eleven of these cases the proposed occupation was the delivery of coal in quantities of one or two hundredweight, the coal being conveyed to the purchaser's house in push carts of the soap-box on wheels variety. It was found that practically all the children engaged in this occupation were beginning to develop spinal curvatures, which was perhaps hardly surprising. In another case the proposed occupation was chopping firewood for sale; in the remaining case it involved the carrying of two milk containers each holding two and a half gallons, a dead weight of over sixty pounds when the containers were full.

The Education Committee therefore refused to sanction the employment of children of school age in such occupations.

1924.

In 1924 the house on the St. Mary's Fields estate (now Haddenham Road School) which had been purchased and reconstructed by the Education Committee was opened as a special school with accommodation for 112 mentally defective children. This replaced the special classes which, for many years, had been held at Willow Street and Elbow Lane Schools.

Another new development during the same year was the establishment of two Open-Air Classes for seventy delicate children at Hinckley Road School.

At the beginning of 1924 the Remedial Exercises Clinic was transferred from the Town Hall to rooms at the Guest House in the Newarke. The new premises were not very suitable for the purpose and in August this Clinic was again moved to St Mary's Home in the Newarke where the accommodation was ample.

The accommodation at Richmond House, opened as a central clinic three years previously had already become inadequate. The building was enlarged by the construction of a new wing to provide a waiting room, and rooms for the ophthalmic clinic and the skin diseases and minor ailments clinic. These clinics were moved to Richmond House from Bond Street and from the Guest House respectively.

1925.

In 1925 an orthopædic surgeon was appointed to attend once a month at Richmond House for the purpose of examining crippled children and deciding whether further treatment was likely to be of benefit to them.

1926.

In 1926 the Board of Education suggested that it would be well to appoint an eye specialist to make periodical examinations of children attending the special classes for partially sighted children. The services of a local ophthalmic surgeon were secured for this purpose.

1927.

Stoneleigh was purchased by the Education Committee and adopted as a special school for blind, partially sighted, deaf and partially deaf children who hitherto had attended special classes at Church Gate.

1929.

A branch clinic for skin diseases and minor ailments and for dental defects was constructed in the grounds of Marriott Road School.

A branch clinic for dental treatment was established at Catherine Street School.

1930.

In 1930 a day open-air school for 180 delicate children was opened at Western Park. The proposal to place the school there aroused furious opposition among the local residents, whose reaction could hardly have been stronger had a leper colony been suggested. After a public enquiry had been held the proposal was sanctioned by the Board of Education and the new school opened on November 7th.

The central clinic at Richmond House was extended in 1930 by the construction of another wing. This gave accommodation for orthopædic, remedial exercises and ultra-violet light clincs.

1931.

A new development of the greatest importance which took place during 1931 was the appointment of a Speech Therapist to deal with cases of stammer and other forms of speech defect amongst school children. In this year the Committee also appointed a Psychologist to advise them regarding children who presented behaviour problems.

1932.

In 1932 the special school for feeble minded children was moved to new premises at Duxbury Road. The school at St. Mary's Fields was re-named Haddenham Road School and converted into an experimental school for maladjusted and nervous children.

1935.

In November, 1935, Dr. Warner retired after thirty years' service as School Medical Officer. The Education Committee appointed as his successor Dr. Macdonald, the Medical Officer of Health.

1936.

In 1936 every school department was supplied with a weighing machine; hitherto weighing machines had been carried round to the schools as the medical officers made their inspections.

A complete Nutrition Survey was held in the course of which 30,909 children were inspected.

A gramophone audiometer was purchased and the systematic testing of hearing in the schools commenced. An ultra-violet lamp with Wood's Glass screen was purchased for the diagnosis of ringworm.

A test for colour vision was incorporated in the routine medical inspection of leavers.

For the first time the travelling exhibits of the Dental Board visited the senior departments of the elementary schools and lectures on the care of the teeth were given to the children.

In view of the extreme importance of a satisfactory diet the Education Committee decided to provide every girl leaving the elementary schools with a leaflet on food, written by the School Medical Officer, and also with a copy of the simple cookery book issued by the British Medical Association.

The two open-air classes at Hinckley Road School, which had been in operation since 1924, were closed.

1937.

In 1937 the junior medical staffs of the School Medical Service and of the Public Health Service were merged so that each officer held the joint position of assistant medical officer of health and assistant school medical officer.

Arrangements were made for the more frequent routine medical inspection of children attending special schools, special classes and nursery classes as the Nutrition Survey held in the previous year had disclosed that these children were specially liable to malnutrition.

Arrangements were made for each child attending an elementary school to be weighed and measured each term and suitable record cards were devised for this purpose.

A clinic for the treatment of children suffering from rheumatic conditions was inaugurated at Richmond House.

A branch clinic for the treatment of skin diseases and minor ailments was commenced at Hamelin Road School to serve the West Braunstone area to which large numbers of very poor children had been transferred by the progress of slum clearance.

In view of the growing recognition of the importance of health education the Committee decided to issue to the parents of every child entering an infants' department a leaflet on "Sleep," and to the parents of every girl entering a senior department a leaflet on "Personal Hygiene." Both these leaflets were written by the School Medical Officer.

To the parents of every girl leaving school a booklet "The Transmission of Life" containing suggestions for sex education was sent.

1938.

In 1938 was held in Leicester the Health Rating Survey in which the attempt was made to classify the children of one age group into four categories in accordance with their general health and to correlate the findings with the incidence of defects. The most important finding that resulted from this survey was that the previously accepted standards of average height and weight were far too low.

A new development was the provision for the first time of orthoptic (squint training) treatment for children suffering from squint.

The Munich crisis occurred in September of this year when the international situation appeared extremely threatening. Courses in First Aid were hurriedly organised at which 803 teachers received instruction. A lecture on "War Gases" was given to several audiences of teachers and a booklet "First Aid to Gas Casualties" written by the School Medical Officer was distributed to all teachers.

1939.

In 1939 the step was taken of linking up the Infant Welfare Centres with the School Medical Service by means of an Infants' Transfer Card which contained a summary of the child's history since birth and which was forwarded to Richmond House when the child entered school.

A pure-tone audiometer was purchased for the accurate estimation of hearing in deaf children and arrangements made to supply hearing aids (auricles) to certain partially deaf children who were thereby enabled to continue at an ordinary school.

It had long been obvious that the existing premises were altogether inadequate to deal with the ever increasing volume of work and the Education Committee had, in 1938, agreed to a scheme for a ring of peripheral clinics so as to decentralise the work as far as possible. The first, and only, clinic built under this scheme was at Cort Crescent which was opened in June. This

clinic made provision for the treatment of skin diseases and minor ailments and for dental treatment; it was also used as an Infant Welfare Centre. This was the first time in Leicester that the same building had been used for both purposes. To the new clinic were transferred the patients of the clinic which had been held at Hamelin Road School since 1937 and which was now closed.

With the outbreak of war in September the clinics at Bond Street, Cort Crescent and Marriott Road were requisitioned as First Aid Posts. Plans had already been made to meet such an emergency and these were promptly put into action. The various clinics were rehoused in various schools the guiding principles being:—

1 To move clinics to outlying parts of the City so as to avoid, as far as possible, any considerable aggregation of children in the central districts.

2 By means of carefully spaced appointments to reduce to a minimum the number of children assembled at any clinic at any one time.

3 To place clinics only where there was adequate shelter in the event of an air raid.

With the exception of the operative clinic and one dental clinic, all the school clinics had resumed work by September 11th. The operative clinic did not resume work until the following year as the need for providing adequately protected premises caused delay and, though Richmond House had not been requisitioned it was considered unsafe to keep children there over night.

1940.

The operative clinic re-opened at Elbow Lane School in February. A new clinic for the treatment of skin diseases and minor ailments was opened at Northfield Lodge in April to serve the north and east of the city. Premises at 85 London Road were taken and adapted as a dental clinic. In view of the alarming increase in the number of cases of scabies reported, the Education Committee decided to open two new clinics for the treatment of this complaint. These were situated at Slater Street and Wellinger Way, the first being in a converted cottage and the second in a temporary wooden structure.

A new duty which fell upon the School Medical Service at this time was in connection with the reception of evacuees. Large numbers of evacuees from east coast areas were received in Leicester during the latter part of the year and carefuly planned arrangements were made for their reception and, when necessary, cleansing and other treatment.

A further new duty was in connection with the Overseas Evacuation Scheme; 1,108 children were medically examined and reports furnished to the Board of Education. Actually no children were evacuated from Leicester under this scheme

1941.

The X-ray clinic at Richmond House was closed during the year, the apparatus, which dated from 1916, being presented to the

College of Technology. A new X-ray apparatus was purchased for the use of the dentists and arrangements were made for any child requiring X-ray treatment for ringworm of the scalp to receive this at the City General Hospital.

1942.

The numbers of cases of scabies continued to increase and, in 1942 the Education Committee opened new clinics for the treatment of this complaint at Marriott Road (now de-requisitioned) and at Northfield Lodge. They also agreed to share the cost of the clinic for the diagnosis and treatment of scabies established by the Public Health Committee at Granby Halls.

In 1942 an examination of the ears with an electric otoscope was incorporated in the routine medical inspection of all children.

1943.

Unfortunately it proved necessary in 1943 to curtail somewhat the School Dental Service as two dentists had resigned and could not be replaced, so that it was necessary to carry on the work with four dentists only.

The Education Committee decided to supply insulin either free of charge or at a reduced rate to children who were in need of it.

The steady drain of staff to the armed forces was, by now, causing considerable difficulty in carrying on the work. At the beginning of 1943 arrangements were made with four local practitioners to take charge of clinics thus setting free full-time officers for inspections in the schools.

1944.

By 1944, however, the position had become so serious that it was necessary to reduce somewhat the scheme of medical inspection by discontinuing the more frequent routine inspections which, since 1937, had been made of children attending Nursery Classes, Special Classes and Special Schools. In this way it was possible to continue routine inspections of the three main age groups.

In the summer of 1944 large numbers of evacuees were received from the London area. Again carefully planned arrangements were made for their reception, examination and, where necessary, treatment.

1945.

In March, 1945, a Health Exhibition was held lasting for four weeks. The second week was devoted to the work of the School Medical Service and allied services. In addition to the exhibits illustrating the various activities making for health in the schools, cinema films were shown, brief talks given on various aspects of health and a large amount of literature distributed to enquirers. The exhibition attracted large numbers of people who appeared to be keenly interested.

The Education Act, 1944, came into force on April 1st, 1945. On and after this date all treatment at the school clinics was given free of cost to the parents.

School Clinics.

Attendances for Treatment.

1913 (half year only).

Clinic	Cases	Attendances
Minor Ailments	58	268
Vision	131	245
Ear, Nose, Throat	61	173
Dental	50	126
Total ...	300	812

1944.

Clinic	Cases	Attendances
Minor Ailments	11,380	52,649
Scabies	5,826	37,968
Vision	2,175	4,666
Orthopædic	1,344	5,835
Ear, Nose, Throat	2,657	6,128
Ultra-violet Light	442	7,396
Dental	7,493	14,635
Rheumatism	427	908
Total	31,744	130,185

C.—Physical Condition of Children.

In one of the most remarkable reports ever submitted to the Education Committee Dr. Warner, in June, 1907, gave an account of the physical condition of the children in the elementary schools. In order to obtain a fair sample of the school population he had divided the schools into three groups:—

A Those schools attended by children from the best homes.

B Intermediate between A and C.

C Those schools attended by children coming from the poorest homes.

He then selected five schools from each group and examined 100 boys and 100 girls from each of these fifteen schools, 3,000 children in all. Some of the more striking of his findings, are given below together with a comparison with present day conditions. Unfortunately the full text of his report has not been preserved and only extracts from it are now available.

1. *Height and Weight.*

One of the most striking things about the modern school child is his, or more particularly her, size. The average increase in both height and weight during the past forty years has been remarkable.

Dr. Warner, in 1906, found that the children in A schools were both taller and heavier than those in B schools, and that these again overtopped and outweighed the children in C schools which served the poorest districts of the city. The extent of the advance since then is shown by the following figures which relate to all the Elementary Schools.

Year	Boys aged 5—6 Height in inches	Boys aged 5—6 Weight in pounds	Girls aged 5—6 Height in inches	Girls aged 5—6 Weight in pounds
1906	40.7	38.1	39.2	37.4
1925	41.6	39.6	41.4	38.3
1940	43.0	41.5	42.5	39.7
1945	42.8	41.9	42.7	40.7

Year	Boys aged 8—9 Height in inches	Boys aged 8—9 Weight in pounds	Girls aged 8—9 Height in inches	Girls aged 8—9 Weight in pounds
1906	47.0	51.7	46.8	50.0
1925	48.1	53.1	47.9	51.1
1940	49.5	55.5	49.7	54.7
1945	49.6	56.3	49.2	54.6

Year	Boys aged 12—13 Height in inches	Boys aged 12—13 Weight in pounds	Girls aged 12—13 Height in inches	Girls aged 12—13 Weight in pounds
1906	54.7	70.9	55.4	71.6
1925	55.2	74.2	55.9	75.3
1940	56.7	79.0	58.2	84.2
1945	56.9	79.6	57.7	82.9

That is to say the average boy aged 12 was in 1945 $2^1/_5$ inches taller and $8\frac{3}{4}$ pounds heavier than was his predecessor of 1906; in the case of the girl aged 12 the difference was $2\frac{1}{3}$ inches and $11\frac{1}{3}$ pounds.

The average girl of twelve has always been taller and heavier than the average boy of the same age, but the difference is now becoming remarkable. It may be surmised that the schoolboy now treats his sister with considerably greater deference than used to be the case.

The increase in height and weight has been much more marked in the years since 1925. No doubt many factors have been responsible for this increase; probably the most important one was the introduction of milk in the elementary school in 1931.

It is particularly pleasing to note that no serious setback has occurred through the war period 1940—1945. There can be no doubt that the most important agency in maintaining the position has been the provision of meals at school.

See Graphs: Height and Weight, pages 65 and 66.

HEIGHT IN INCHES

INCHES

59

58

57

56

55

54

BOYS AGED 12

1940

1945

1925

1906

GIRLS AGED 12

1940

1945

1925

1906

WEIGHT IN POUNDS

POUNDS
'85
84
83
82
81
80
79
78
77
76
75
74
73
72
71
70

BOYS AGED 12

1940
1945
1925
1906

GIRLS AGED 12

1940
1945
1925
1906

66

2. *Nutrition.*

In 1906 the percentage of children recorded as having bad nutrition was:—

In A schools	3.1 per cent.
In B schools	9.2 per cent.
In C schools	18.7 per cent.

In 1945 the proportion of children in all elementary schools recorded as showing bad nutrition was 0.5 per cent.

Unfortunately the mode of classifying nutrition has been changed since 1906 so that it is not certain that these figures are strictly comparable.

Many factors have, of course, been responsible for this improvement; better education of mothers; better housing; milk, cod-liver oil and orange juice in school; meals in school; and the remedial treatment given to the delicate and under-nourished child at the open-air school and the ultra-violet light clinic.

3. *Clothing.*

In 1906 the proportion of children recorded as having clothing which was markedly ragged or dirty was:—

In A schools	0.6 per cent.
In B schools	4.9 per cent.
In C schools	21.8 per cent.

In 1945 the percentage of children in all schools recorded as having unsatisfactory clothing was 0.3 per cent.

In 1906 the proportion of children found to have footgear in so bad a condition as to be practically useless was:—

In A schools	0.6 per cent.
In B schools	2.3 per cent.
In C schools	12.6 per cent.

In 1945 the percentage of children in all schools recorded as having unsatisfactory footgear was 0.8 per cent.

4. *Vermin.*

(*a*) *Body Lice.*

In 1907 the School Nurse examined 5,000 children of whom 470 were found to be infested with body lice—a percentage of 9.4. It is but just to point out that her attention was, naturally, directed to the poorest schools in the city.

In 1945 the School Nurses examined 27,212 children of whom 52 were infected with body lice—a percentage of 0.2.

(*b*) *Head lice and nits.*

The percentage of children having clean hair, nits and head lice respectively were in 1906:—

Boys.

	Hair Clean	Nits	Head Lice
In A schools ...	86.6	13.2	0.2
In B schools ...	79.6	20.4	—
In C schools ...	60.0	37.6	0.4

Girls.

	Hair Clean	Nits	Head Lice
In A schools ...	33.8	62.6	3.6
In B schools ...	21.6	71.0	7.4
In C schools ...	8.0	67.4	24.6

That is to say that in the schools serving the poorest districts only eight per cent. of the girls had clean heads whilst almost one quarter of the girls were verminous.

If we take the average of these percentages as applying to the school population as a whole, which will be at least approximately true, then 48.6 per cent. of the children had clean heads, 45.4 per cent. had nits in their hair and 6.0 per cent. were lousy.

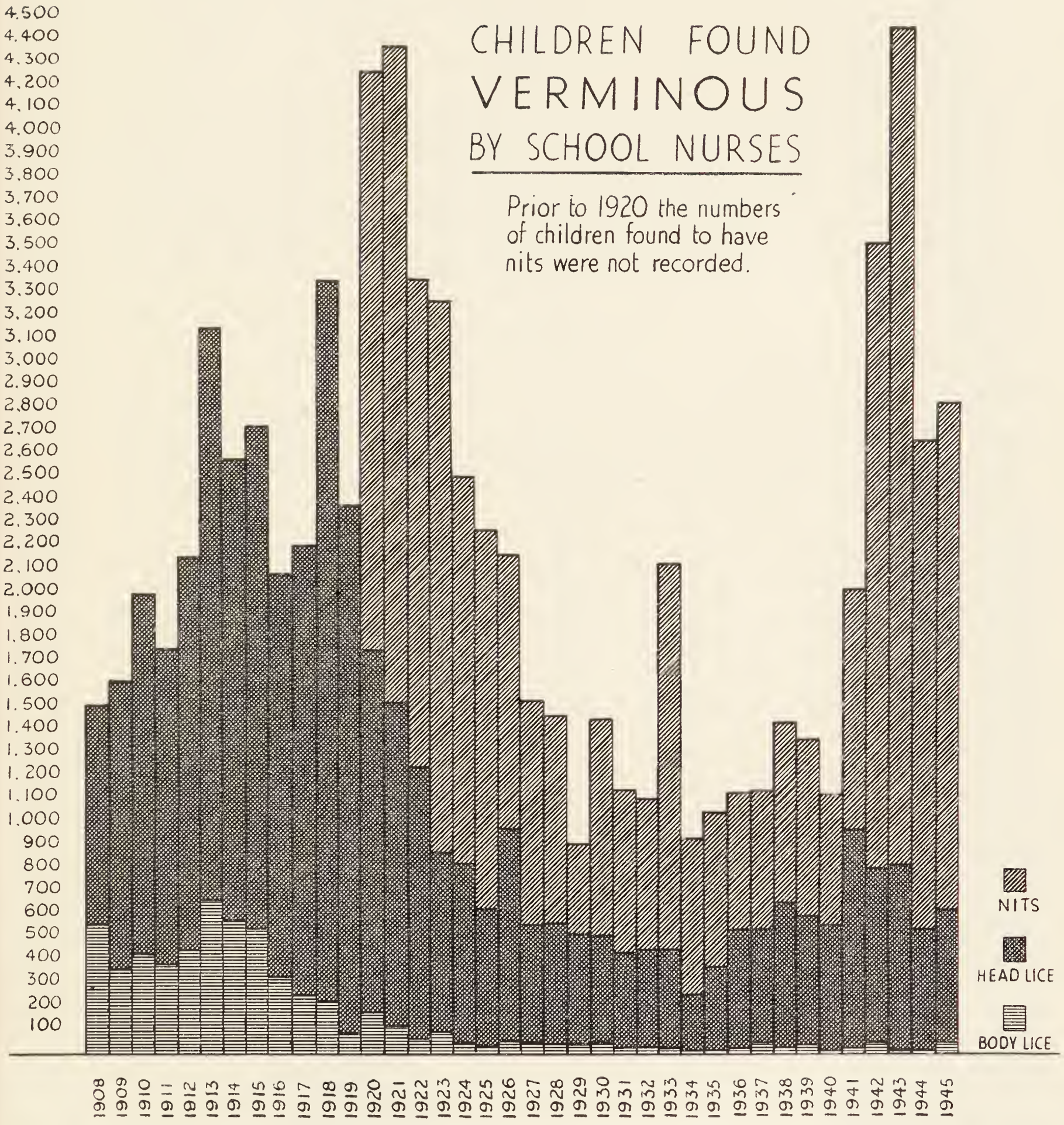
The corresponding figures for 1945 were:—

Hair Clean, 89.6; Nits, 7.9; Head lice, 2.3.

That is to say the proportion of children having nits in their hair had been reduced to one-sixth and the percentage of children with head lice had been reduced to one third of the previous figures.

These figures give not the smallest ground for complacency. The proportion of infested children is still far too high. Unfortunately this condition is favoured by war, with its inevitable movements of population, overcrowding, and employment of mothers in industry. The present proportion of children with nits is three times the average of the five years 1936-40 though, curiously, the percentage of children infested by lice has changed but little during the war.

See Graph: Verminous, page 69.


CHILDREN FOUND
VERMINOUS
BY SCHOOL NURSES
Prior to 1920 the numbers of children found to have nits were not recorded.
4,500
4,400
4,300
4,200
4,100
4,000
3,900
3,800
3,700
3,600
3,500
3,400
3,300
3,200
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600
500
400
300
200
100
1908
1909
1910
1911
1912
1913
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
1934
1935
1936
1937
1938
1939
1940
1941
1942
1943
1944
1945
NITS
HEAD LICE
BODY LICE

5. *Teeth.*

The condition of the teeth found at routine medical inspection of the twelve year old group of children is shown below:—

Year	Percentage of children having Teeth sound (naturally or artificially)	Fewer than four teeth decayed	Four or more teeth decayed
1912	18%	62%	20%
1944	72.5%	24.8%	2.7%

There has been a marked improvement in the dental condition of the children and this change has been particularly evident during the last three or four years. This improvement is shown at all ages but is most marked among the older children. Presumably the causes at work here are the rationing of food, particularly of sweets and biscuits; the extension of the school meals scheme; and the increased consumption of milk in school.

D.—Infectious Diseases.

1. *Scabies.*

The incidence of Scabies shows in a most remarkable way, the effect of war conditions with their inevitable accompaniments of extensive movements of population and overcrowding. The numbers of cases discovered amongst Leicester School children have been:—

Year		Year		Year	
1908	135	1921	316	1934	54
1909	121	1922	114	1935	67
1910	142	1923	65	1936	143
1911	143	1924	65	1937	215
1912	172	1925	30	1938	371
1913	152	1926	12	1939	445
1914	111	1927	31	1940	738
1915	145	1928	44	1941	2,637
1916	381	1929	61	1942	2,973
1917	796	1930	40	1943	2,349
1918	943	1931	34	1944	2,020
1919	660	1932	47	1945	1,515
1920	579	1933	45	1946.	933

The rise in the number of cases during the war periods is very clearly shown; during the First World War Scabies was popularly known as "bread rash" and was ascribed to eating war time bread.

The remarkable point about the present outbreak is that it began to be noticeable in 1936, i.e., three years before the war; in the previous war no increase was observed until the war had started.

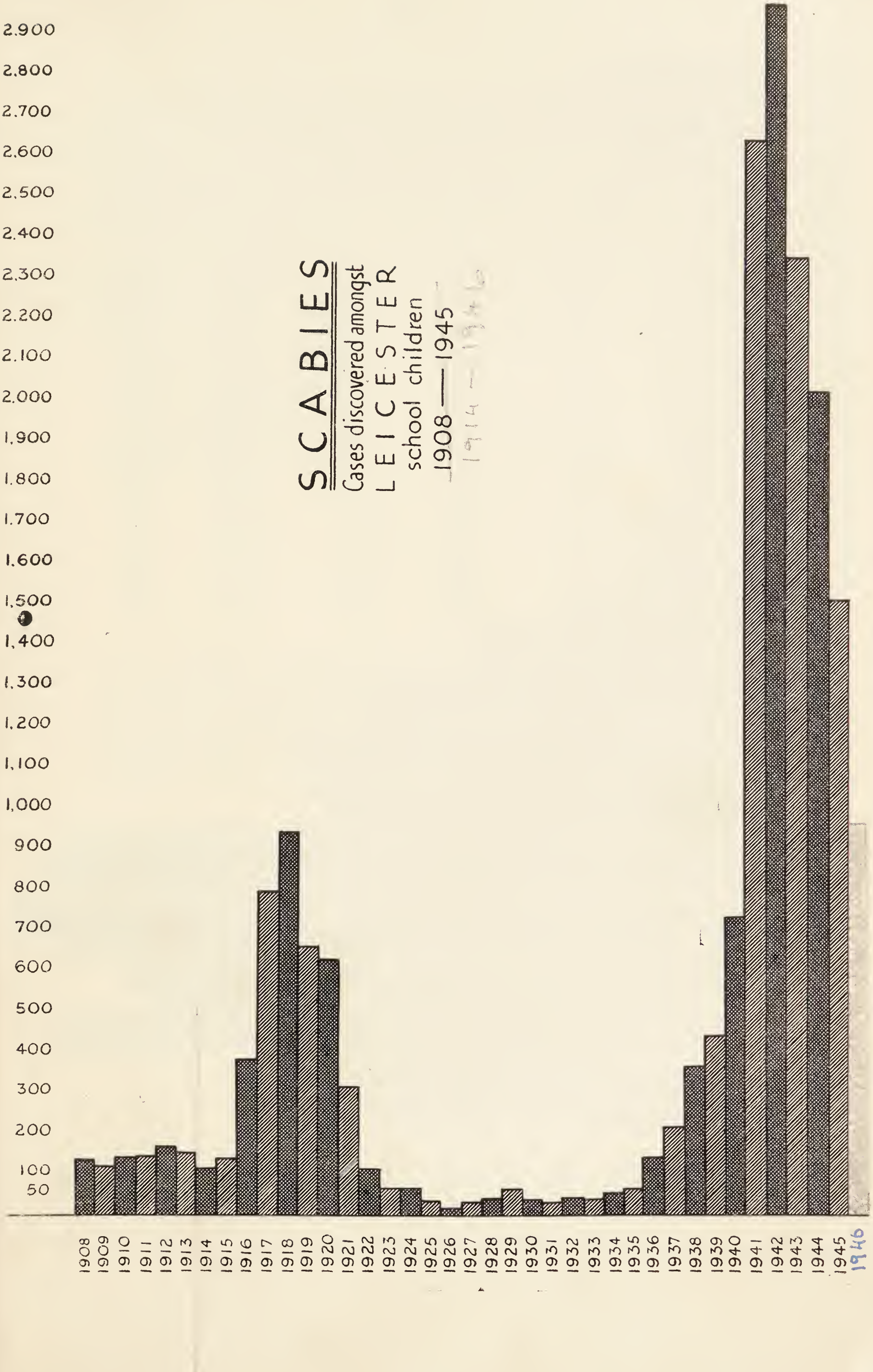
The cause of this pre-war increase in scabies is a mystery. It was not confined to Leicester but was noticeable all over the country. Once the war had started the numbers of cases shot up with amazing rapidity and still remain very high in spite of the most strenuous efforts to bring them down.

See Graph: Scabies, page 71.

SCABIES

Cases discovered amongst
LEICESTER
school children
1908 — 1945

1914 — 1945



2. *Ringworm.*

This condition was very prevalent among school children forty years ago when the standard household remedy for it was ink, applied externally, not taken internally, be it noted.

The numbers of cases discovered amongst Leicester school children were:—

Year		Year		Year	
1908	751	1921	863	1934	143
1909	780	1922	765	1935	128
1910	881	1923	701	1936	94
1911	1,315	1924	564	1937	144
1912	1,123	1925	508	1938	144
1913	1,183	1926	411	1939	117
1914	1,318	1927	299	1940	121
1915	1,391	1928	238	1941	122
1916	1,391	1929	283	1942	296
1917	1,332	1930	184	1943	302
1918	1,288	1931	158	1944	439
1919	830	1932	168	1945	306
1920	841	1933	129		

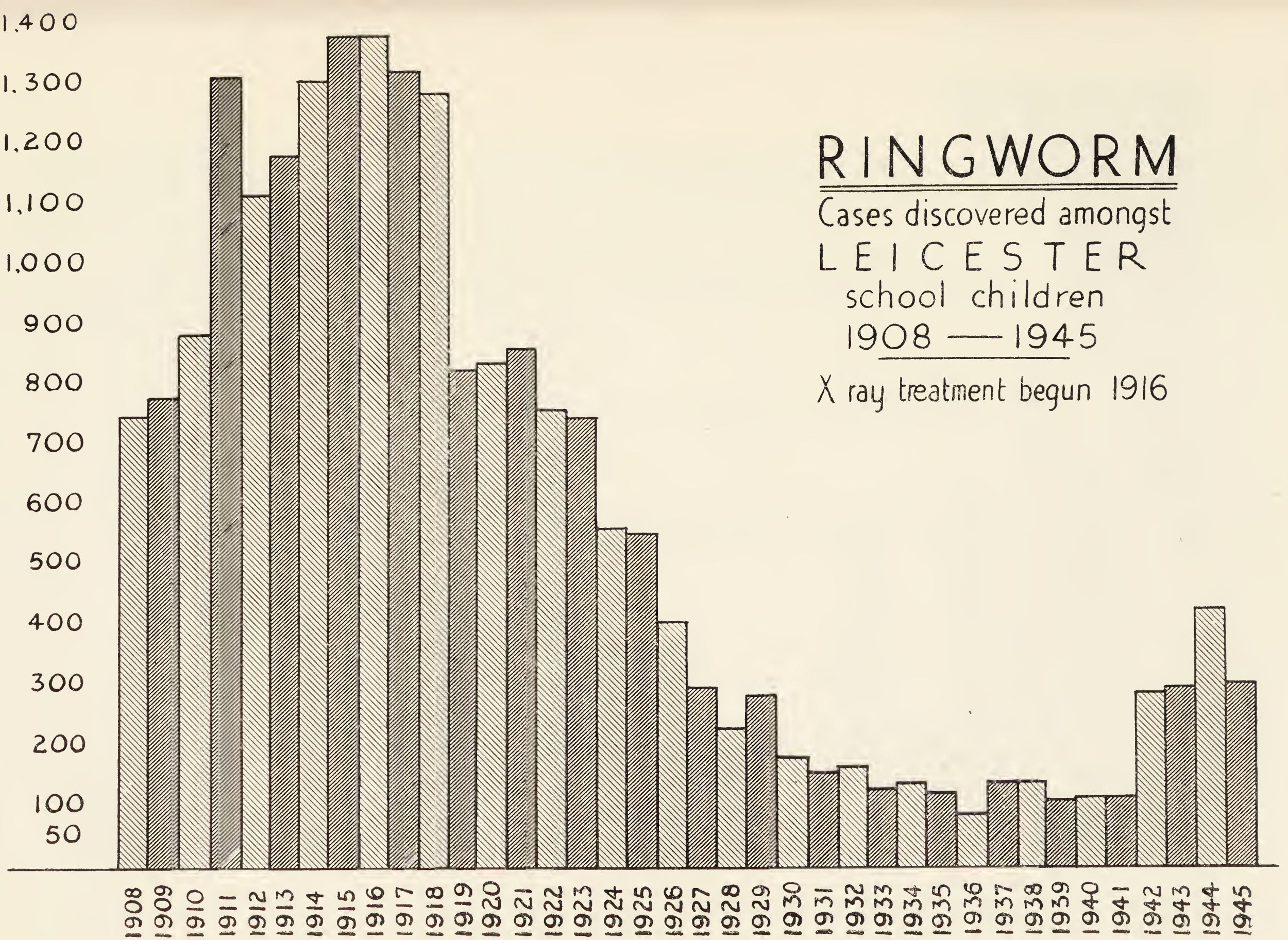
These figures show well the dramatic fall in the numbers of cases which followed the introduction of X-ray treatment in 1916 and the inevitable rise, due to war conditions, in the last few years. The sudden increase shown in 1911 coincides with the appointment of an assistant medical officer which enabled a more searching examination of the children to be undertaken.

See Graph: Ringworm, page 73.

RINGWORM

Cases discovered amongst
LEICESTER
school children
1908 — 1945

X ray treatment begun 1916



3. *Diphtheria.*

Diphtheria is the only one amongst the common infectious diseases which is, in the present state of medical knowledge, entirely preventable as Canadian experience has shown. The following figures show the number of cases notified by the head teachers in each year. These figures are not quite complete as cases occurring during the holidays are not included, they are, however, comparable from year to year.

Year		Year		Year	
1908	64	1921	147	1934	283
1909	60	1922	85	1935	244
1910	41	1923	63	1936	116
1911	100	1924	210	1937	274
1912	102	1925	180	1938	340
1913	65	1926	187	1939	211
1914	48	1927	163	1940	419
1915	39	1928	183	1941	349
1916	37	1929	123	1942	321
1917	57	1930	100	1943	96
1918	57	1931	49	1944	84
1919	115	1932	43	1945	71
1920	220	1933	189		

The figures for 1940 were the highest ever recorded. This may not be unconnected with the fact that in that year Tellurite media were first used at the Isolation Hospital as a routine measure for outside swabs.

The effect of Tellurite media is to prevent the growth of other organisms whilst allowing diphtheria germs to grow freely. It is likely, therefore, that in 1940 and subsequent years many cases were diagnosed as diphtheria which in previous years would have gone unrecognised owing to the specific organisms being present in such small numbers that they were overgrown by others.

Immunisation against diphtheria began in Leicester in 1937. It is estimated that at the end of 1942, when the number of cases showed a sudden fall, some 45.5 per cent. of children had been immunised. At the end of 1945 the approximate proportion of children of school age immunised was 79.9 per cent. It is hoped that is the reason for the marked fall in the number of cases of this disease during the past three years.

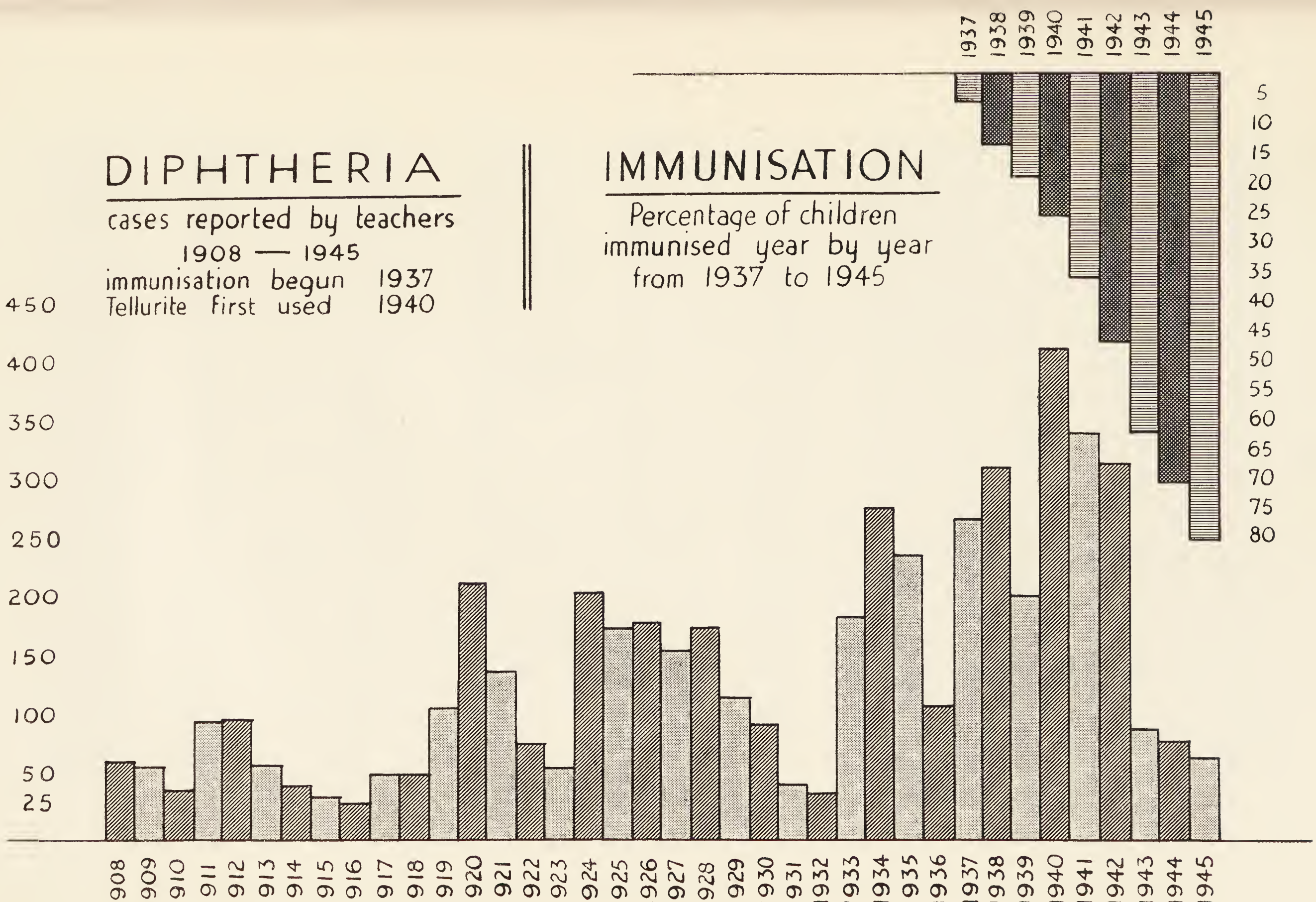
See Graph: Diphtheria and Immunisation, page 75.

DIPHTHERIA

cases reported by teachers
1908 — 1945
immunisation begun 1937
Tellurite first used 1940

IMMUNISATION

Percentage of children immunised year by year from 1937 to 1945



4. *Measles.*

Measles is an example of a disease which is, in the present state of our knowledge, almost entirely uncontrollable. We are, for all practical purposes, as incapable of stopping a measles epidemic as we were forty years ago. Various steps have been tried to this end. In his annual reports for 1908 and 1920 Dr. Warner describes experiments in class closure which had been tried for this purpose. The only effect of such measures was to spread the epidemic over a longer period.

But though the prevalence of measles is as great as ever, so that we expect an outbreak whenever there are sufficient number of susceptible persons in the community, i.e., about every two years, yet the mortality resulting therefrom has been enormously reduced. In 1908, when there was an extensive outbreak of measles, the Medical Officer of Health recorded 167 deaths from this disease. The number of cases is not known as measles was not then notifiable. In 1942 and 1943 there was also an extensive outbreak of measles 5,850 cases being notified. The number of deaths was three.

The better education of mothers in infant welfare and the improved nutrition of the children have, no doubt, been the chief factors in producing this result.

5. *Small Pox.*

A fairly extensive outbreak of minor small pox commenced in 1929. The numbers of cases recorded amongst school children were:

Year		Year	
1929	112	1932	51
1930	356	1933	—
1931	397	1934	1

Since 1934 no case in a child of school age has been recorded.

6. *Infantile Paralysis.*

A small outbreak of this disease began in 1926. The numbers of cases among children of school age were:—

1926	27
1927	4
1928	6

After 1928 no case in a child of school age was recorded until 1943 when one case occurred. In 1944, three cases were recorded and in 1945 two cases.

7. *Sleepy Sickness* (*Encephalitis Lethargica*).

This mysterious disease first made its appearance in Vienna in 1916.

The first cases recorded in England were in 1918 and the first notifications in Leicester were in 1920. The figures given below are for all ages, adults as well as school children.

Year		Year	
1920	9	1925	26
1921	10	1926	14
1922	6	1927	13
1923	12	1928	7
1924	22	1929	12
		1930	8

After 1930 no reference to it is made in the reports of the Medical Officer of Health until 1934 when two cases occurred and it is stated that the average number of cases yearly during the preceding five years was three. After 1934 no reference to this complaint can be found, but it is known that there were occasional sporadic cases.

8. *Epidemic Jaundice (Infective Hepatitis).*

The first epidemic outbreak of this disease occurred during the first half of 1945 when 33 children and one teacher attending Wyvern Avenue School were affected.

Prior to this outbreak there had been various sporadic cases scattered over the City but nothing recognisable as an epidemic.

E.—School Feeding.

1907.

The Education Committee, in June, 1907, decided to put into force the Education (Provision of Meals) Act, 1906. This was after a report had been received from Dr. Warner that there were, in the elementary schools, 695 children in an underfed condition.

1911.

In September, 1907, the Leicester Children's Aid Association was constituted as the School Canteen Committee. Children in need were reported to the Committee by teachers, attendance officers, the School Medical Officer or the School Nurse. No dining centre was established but an allowance of bread and milk was delivered daily at the home of each child. It is recorded that the number of children thus assisted during 1911 was 900, of whom 609 were of school age, the number of meals supplied being 65,168.

The whole of the cost was defrayed by voluntary subscriptions, no part falling upon the rates.

1914.

In September, 1914, the Children's Aid Association decided to discontinue the work of feeding necessitous school children, in view of the fact that the Board of Education refused to make any grant towards the cost of such feeding when this was administered by a

voluntary association. The Education Committee therefore decided to carry on the work themselves and a Canteen Sub-Committee was formed to administer it. The food continued to be sent to the homes of the children but the somewhat austere diet of bread and milk was supplemented by the addition of margarine, rice, tapioca, sugar and cheese.

1915.

Early in 1915 two dining centres were opened, at Elbow Lane and Catherine Street Schools, where the more necessitous children could attend for a mid-day meal. Each centre accommodated forty children. Arrangements were made with a caterer to supply a mid-day meal at an inclusive charge of threepence per head to include the supply of food, serving and the use of crockery. The teachers at these schools volunteered to supervise the children during meals.

The attendance at these centres was disappointingly small; apparently the caterer's meals were lacking in appeal. The Elbow Lane centre was closed in July, 1915, and the Catherine Street centre at the end of 1915. After that date food was delivered at the homes of the children as had been the practice previously

1920.

In October, 1920, owing to unemployment, the number of children requiring meals had increased considerably. The Education Committee opened four Dining Centres in Newby Street, New Park Street, Bardolph Street and Orchard Street. Arrangements were again made with a caterer to supply a mid-day meal on each day of the week except Sunday. The number of individual children who received food during 1921 was 1,103 and the number of meals supplied was 128,376.

1922—1923.

By 1922 the demands for free meals had diminished and the centres at New Park Street and Orchard Street were closed. The centres at Bardolph Street and Newby Street remained open until August, 1923, when they were closed and the centre at Orchard Street re-opened. This Centre remained open until the outbreak of war in 1939.

1924.

In 1924 the Committee decided to convert a portion of the store room at Hinckley Road School into a kitchen, so that the seventy children attending the recently formed open-air classes at that school could have a hot mid-day meal.

The cost to the parents was fivepence per day which was waived in necessitous cases. This was the first occasion on which meals were supplied at a Leicester elementary school.

1926.

In 1926 similar arrangements were made for the children attending the special school for the feeble-minded. Previously to this children had brought their dinner with them to the school. An immediate result was a considerable and obvious improvement in the health of the children.

1931.

In 1931 an innovation of the utmost importance occurred when all children in the Infants' Departments were offered one third of a pint of pasteurised milk at a cost of one penny daily. Each child had a separate bottle and drank the milk through a straw. Payment for the milk was waived in necessitous cases and two thirds of the children on the registers received milk.

1934.

In October, 1934, the price of the milk was reduced to one half-penny per day and at the same time the scheme was extended to children attending Junior departments.

1935—1936.

In April, 1935, the scheme was again extended to include senior departments so that all children in the elementary schools became eligible to receive milk. By the end of 1936 half of the children in the elementary schools were receiving milk and the amount supplied during the year was 149,714 gallons.

1937.

The meals supplied to the Dining Centre by the caterer had been the target of much criticism and the Education Committee decided to make its own arrangements for these meals. The kitchen at Hinckley Road School, which had been disused since the open-air classes closed in 1936, was employed for the purpose, the meals being conveyed to the Dining Centre by motor van. The new arrangement began in February, 1937; the immediate result was an immense improvement in the quality of the meals—an improvement which was fully appreciated by the clientele.

As a result of slum clearance in the centre of the City it was found that a considerable number of children who had been attending the Dining Centre were unable to reach it on account of the distance of their new schools from the centre of the town. The Committee therefore, in November, opened a subsidiary Dining Centre at Bendbow Rise School to serve children living in the West Braunstone area.

A most interesting experiment, started in November 1937, was the provision of a mid-day meal to the children attending the four nursery classes at Christow Street and at Taylor Street Schools. The effect of these meals was to make conditions practically identical with those at a nursery school. The results, as measured by the improvement in the physical condition of the children, were highly satisfactory.

1939.

By May, 1939, the new Dining Centre at Bendbow Rise School had already become overcrowded and another centre was opened at Cort Crescent School.

In May, 1939, meals were supplied to children attending the two nursery classes at Overton Road School.

With the outbreak of war in September it became necessary to make fresh arrangements for the children attending the Dining Centre at Orchard Street—which had been opened continuously since 1923—as here there was no available shelter against air attack. This centre was accordingly closed and the children transferred to two new centres, situated at Ellis Avenue and Mundella Schools, at both of which there was suitable shelter in the school trenches.

1941.

In May, 1941, there was a great expansion in the scheme of school meals. This was rendered necessary by the steadily increasing employment of mothers in war work. For the first time in Leicester school canteens were opened at eleven schools where children who had both parents at work could obtain a hot mid-day meal at a cost of fivepence.

The first step taken was to move the central kitchen from the extremely cramped quarters at Hinckley Road School to very much more spacious premises in the ground floor of the disused school in Old Milton Street. Difficulties of supply caused the scheme to be delayed for some months. These were finally overcome and the school canteens were opened on September 22nd.

At the same time provision of meals to children attending nursery classes was greatly expanded.

In view of the likelihood of a serious shortage of fresh fruit and green vegetables during the winter months the Committee decided that each child having meals, whether free or on payment, at an elementary or special school was to be given, from the beginning of November until the end of April, a regular allowance of vitamin C. On the advice of the Ministry of Health the amount was fixed at 50 milligrammes of ascorbic acid (1,000 international) units weekly, irrespective of the age of the child. This amount is equivalent to the juice of one large orange or of two small ones.

1942—1943.

The number of school dining centres was steadily increased. By the end of 1942 there were 33 such centres; at the end of 1943 the number had risen to 52. In order to cope with the enormous numbers of meals supplied, a second central kitchen was opened in the unfinished school at Humberstone in May, 1942, by the Ministry of Food; this came under the control of the Education Committee in February, 1943.

In November, 1943, arrangements were made for all children below the age of five years who were in full-time attendance at elementary schools to receive regular rations of concentrated orange juice and of cod liver oil. Both these issues proved to be extremely popular with the children. One small boy was actually detected going round to the tail of the cod liver oil queue to secure a second helping.

Arrangements were also made for the issue of ferrous sulphate tablets to those children attending War-time Nursery Classes who were considered by the medical officer to be suffering from anæmia.

The result was so successful that, in December, 1944, the Committee decided to extend this issue to children attending all Nursery Classes.

1944.

In July, 1944, the influx of evacuees from the London area was so great as to necessitate a considerable further expansion in the scheme. Twelve temporary dining centres were opened and also two emergency kitchens at De Montfort Hall and at Southfields Drive Community Centre. Arrangements were also made for meals to be supplied during three weeks of the summer holiday at fifteen holiday dining centres.

The number of dinners supplied daily at the end of 1944 was above six thousand; the number provided during the year was 1,190,793. The amount of milk consumed at the school during the year was 326,756 gallons.

1945.

In August, 1945, a third central kitchen was opened at Goldhill.

At the end of 1945 there were 65 elementary and 4 secondary schools which were supplied with dinners from the central kitchens.

F.—Special Enquiries and Reports.

During the forty years of its existence the staff of the School Medical Service has undertaken many special enquiries on points arising from the work of the service.

Dr. WARNER *reported on* :—

"The Problem of the Neglected Child"	The Child	1911
"The Effect of Sunlight and Fresh Air on the Debilitated Child"	The Child	1912
"The Assessment of Physical Fitness"	S.M.O. Report	1922
"Rheumatism and Heart Disease"	,, ,,	1923
"Epidemic Encephalitis"	,, ,,	1924
"Twenty Years of School Medical Service"	,, ,,	1925
"Nervousness in Children"	,, ,,	1926
"Tuberculosis in Children"	,, ,,	1927
"Influence of Home on Nutrition"	,, ,,	1928
"Teaching of Hygiene in Schools"	,, ,,	1929
"The Western Park Open Air School"	,, ,,	1930
"Training in Correct Posture"	,, ,,	1932
"Residential Schools for Delicate Children"	,, ,,	1933
"Beginnings of Postural Defects"	,, ,,	1934
"Post-School Career of Epileptics"	,, ,,	1935

Mr. KEEN *contributed reports on* :—

"Results of Operation for Tonsils and Adenoids"	S.M.O. Report	1923
"Localisation of Sound"	J. Laryngology and Otology	1925
"End Results of Radical Mastoid Operation"	S.M.O. Report	1926
"Zinc Ionisation in Otorrhœa"	,, ,,	1927
"Functions of Auditory Ossicles"	,, ,,	1928
"Non-operative Treatment of Tonsils and Adenoids"	,, ,,	1929
"Foreign Bodies in Ear and Nose"	,, ,,	1930
"End Results of Tonsil and Adenoid Operation	,, ,,	1932
"Complications of Tonsillectomy"	J. Laryngology and Otology	1932
"Chronic Deafness in Children"	,, ,, ,,	1934
"Sound Stimulation in Education of Deaf"	S.M.O. Report	1935
"Relation between Pure-tone Audiometer, Gramophone Audiometer and Voice Tests for Hearing"	S.M.O. Report	1937

Dr. TURNER *wrote on* :—

"Rates of Growth of Children"	S.M.O. Report	1913
"Enlargements of Thyroid Gland"	,, ,,	1919
"Testing of Colour Vision"	,, ,,	1936
"Meals in Nursery Classes"	,, ,,	1938
"The Health Rating Survey"	,, ,,	1938
"Latent Malnutrition"	Medical Officer	1939
"The Leicester Audiometer Survey"	,, ,,	1939
"Ascorbic Acid at Clinics"	S.M.O. Report	1941
"Medicated Hair Oils in Treatment of Lice"	,, ,,	1942
"Epidemic Jaundice"	,, ,,	1945

Mr. HARVEY *wrote reports on* :—

"Dental Condition of Children Leaving School"	S.M.O. Report	1929
"Abnormal Susceptibility to Dental Caries"	,, ,,	1936

Dr. SIMPSON *reported on* :—

"The Ventilation of Schools"	Journal of Hygiene	1924

Dr. BRAITHWAITE *wrote on* :—

"Rheumatism in Children"	S.M.O. Report	1938 et seq.

Dr. McPherson *on* :—			
"The A.C.H. Index as an Assessment of Nutrition"	S.M.O. Report		1938
Dr. McAlpine *on* :—			
"Obesity in School Children"	,,		1940 1942
Dr. Wilson *on* :—			
"Otoscopy at Routine Medical Examinations"	,,	,,	1941
Dr. Hearth *on* :—			
"Schick Testing of Adolescents"	,,	,,	1941

In addition the staff and students of King's College of Household and Social Science carried out, during the war, a most valuable series of investigations into dietary problems the results of which were embodied in the following reports:—

"Ascorbic Acid Content of School Meals"	S.M.O. Report		1942
"Calcium Content of Schools Meals"	,,	,,	1944
"Diet and Rheumatism"	,,	,,	1944
"Iron Content of School Meals"	,,	,,	1945

G.—Summary.

The development of the School Medical Service during the past forty years gives a record of steady progress during years of peace with a more or less serious setback each time there is a war. The setback due to the Second World War is all too obvious at the present time in the prevalence of scabies, ringworm and nits. Most fortunately there has been no serious deterioration in the nutritional state of the children thanks to the provision of meals, milk and vitamins at school.

In the course of its growth the School Medical Service has met with both failure and success. Of the failures most have been due to sheer ignorance; we are quite unable to check an outbreak of mumps or measles or to prevent a child from developing adenoids because medical knowledge is, at present, in too rudimentary a state. We simply do not know enough about these conditions.

Typical of these failures is the search for an objective index of nutrition. At present the assessment of a child's nutrition is dependent upon the personal judgment of the examiner. This is by no means wholly satisfactory—the examiner may, for instance be unconsciously biassed by having seen immediately beforehand a whole series of children with excellent nutrition, or with very poor nutrition. Also, however the categories are framed, there will inevitably be many borderline cases with regard to which examiners will differ in their opinion. It would be of great advantage if some set of measurements could be devised which would give a reliable index of a child's nutrition free from any individual bias on the part of the examiner.

No such index has been found though the search has been long and widespread. All kinds of anatomical and physiological measurements have been tried in innumerable combinations and permutations. Scores of School Medical Officers have gone out into the mathematical wilderness and sought for the perfect index with a persistence worthy of the Grail itself. Not one of their finds has met with general acceptance. It would appear that the concept of nutrition is too elusive to be trapped in any mathematical mesh we are, at present, capable of weaving.

There is, however, one outstanding failure which is due not to radical ignorance but to social causes. This is the continued prevalence of head lice among a section of the population. This prevalence had, before the war, been reduced to a small fraction of what it was in the old days but the reduction was effected only by incessant vigilance on the part of the School Nurses.

In this condition education has proved unable to overcome indifference and inertia on the part of a section of the mothers. We appear to be up against a hard core which is highly resistant to education; the mothers of this section of the children are simply unteachable in this respect.

It may be that when the new insecticides, such as D.D.T., become available for civilian use the problem will be simplified. Otherwise these vermin seem likely to remain an ever present pest unless and until public opinion is prepared to sanction far more drastic action in respect of persistently verminous persons than has yet been seriously contemplated. The Briton has always been willing to pay a high price for individual liberty; the presence among us of a pool of verminous persons is a part of that price.

The successes of the School Medical Service are indicated in the preceding pages. The average school child of today is taller, heavier, better nourished and better clad than was his predecessor of forty years ago. An immense burden of minor disabilities has been lifted from him. He is altogether a healthier animal.

The greatest success of all is, however, hardly expressible in figures; this is the increased sense of responsibility on the part of parents and the altogether higher standard of parental care exercised in even the poorest homes. So far from the School Medical Service having sapped all sense of parental responsibility, as used to be alleged by its detractors, this has been greatly strengthened. In 1911 Dr. Warner stated that he had examined 40,000 school children of whom at least 10 per cent. were neglected to such a degree as to cause injury to their health. ("The Problem of the Neglected Child." The Child. July, 1911.) Such a statement would be grotesquely wide of the mark today. Many agencies, of course, have taken part in producing this higher standard of parental care, notably the Infant Welfare Service and the generally improved level of education, but the School Medical Service can lay claim to no inconsiderable share in this advance. To have played a major part in bringing about this change of attitude on the part of parents may perhaps be regarded as the greatest achievement of the School Medical Service.

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